

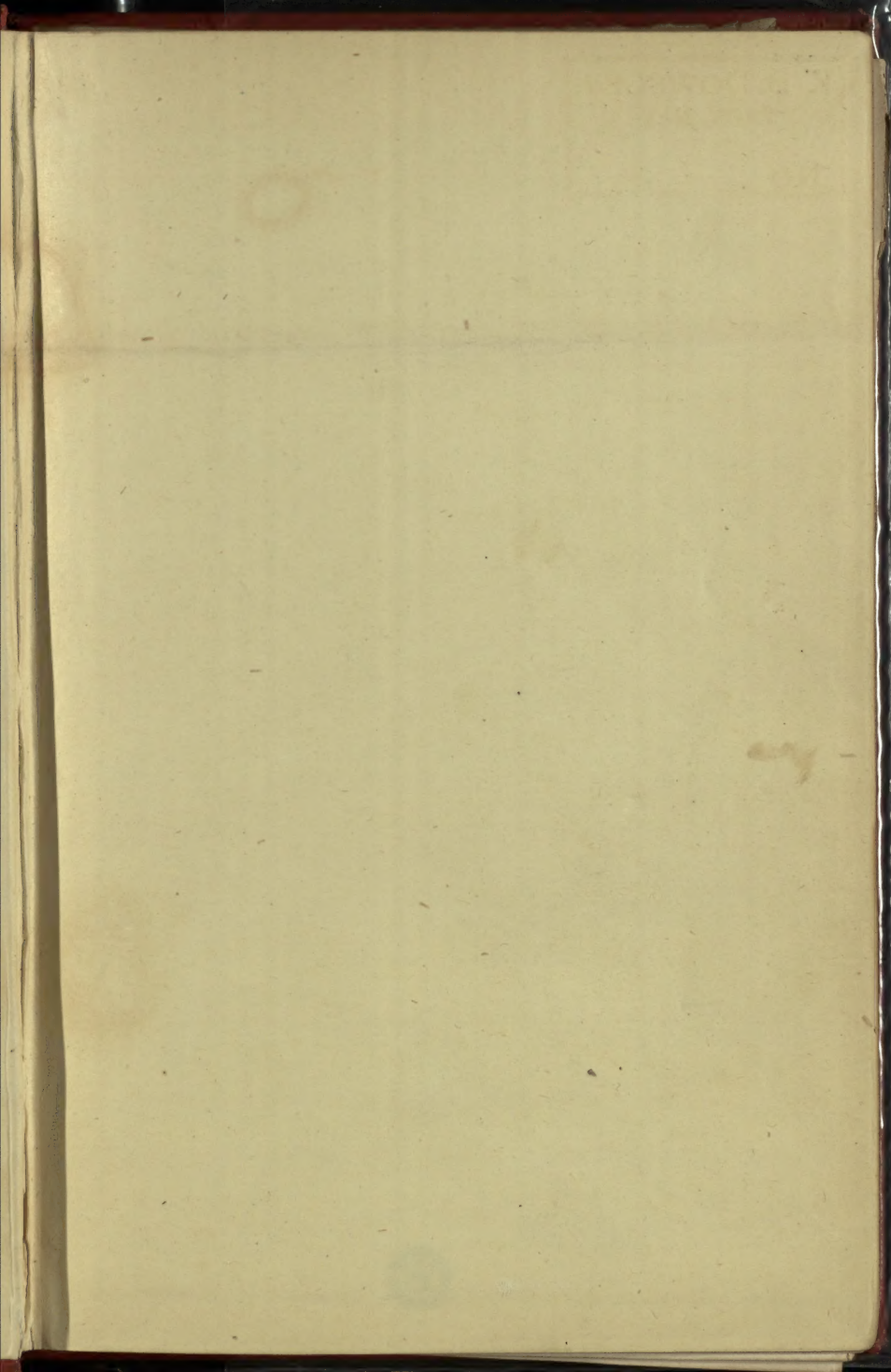
THE
GREAT
EXHIBITION



ILLUSTRATED
1851

K. B. DOWSLEY,
TROY, N. Y.

No. 54



K. B. DOW
TROY, N

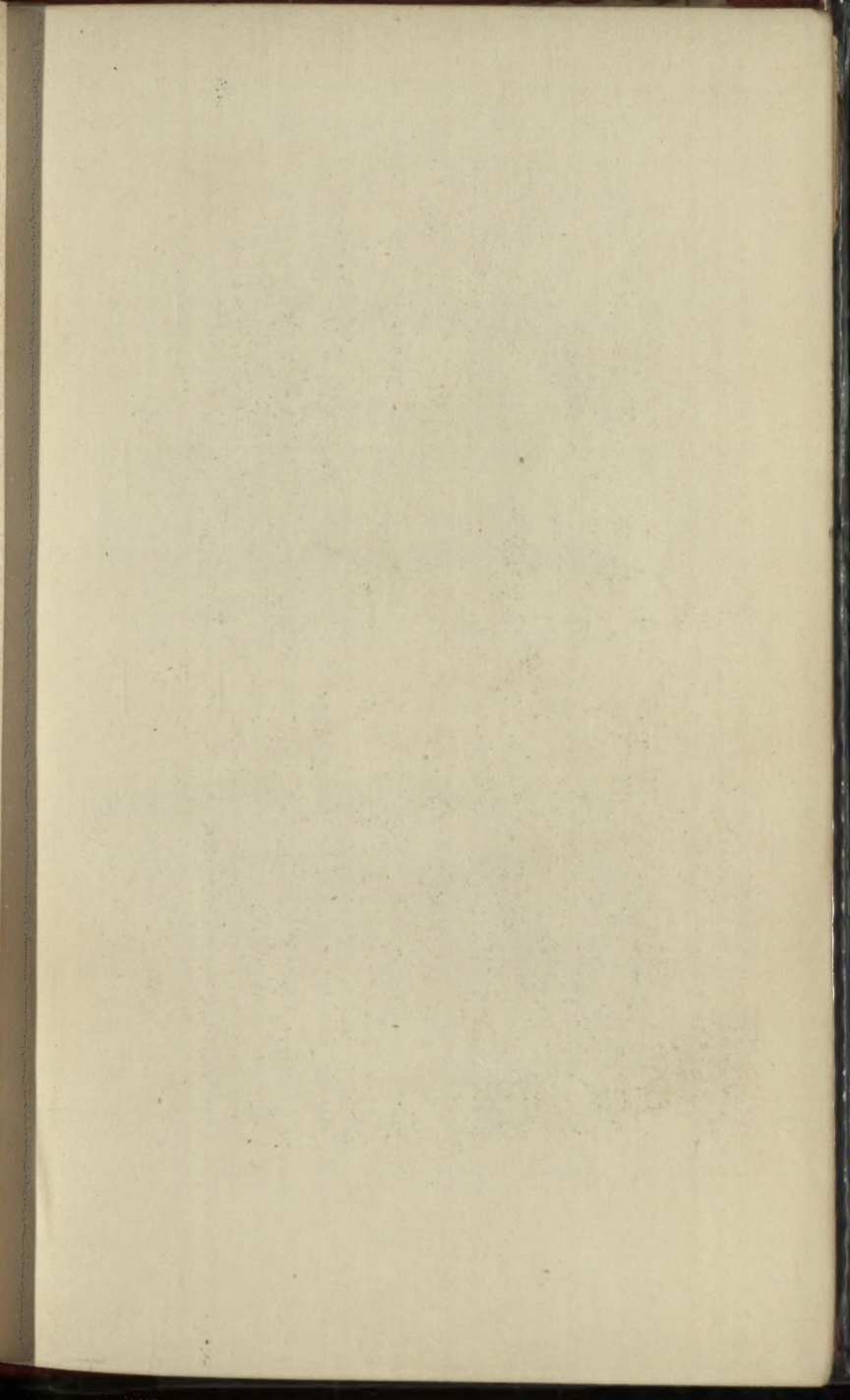
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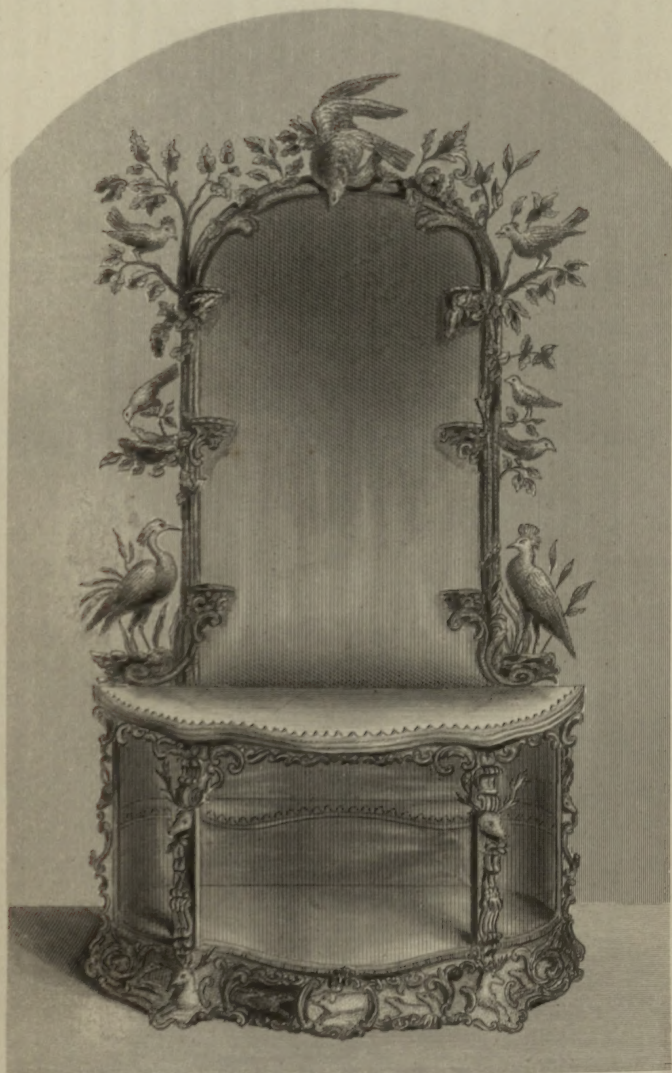


K. B. D.

TRO

No. 1

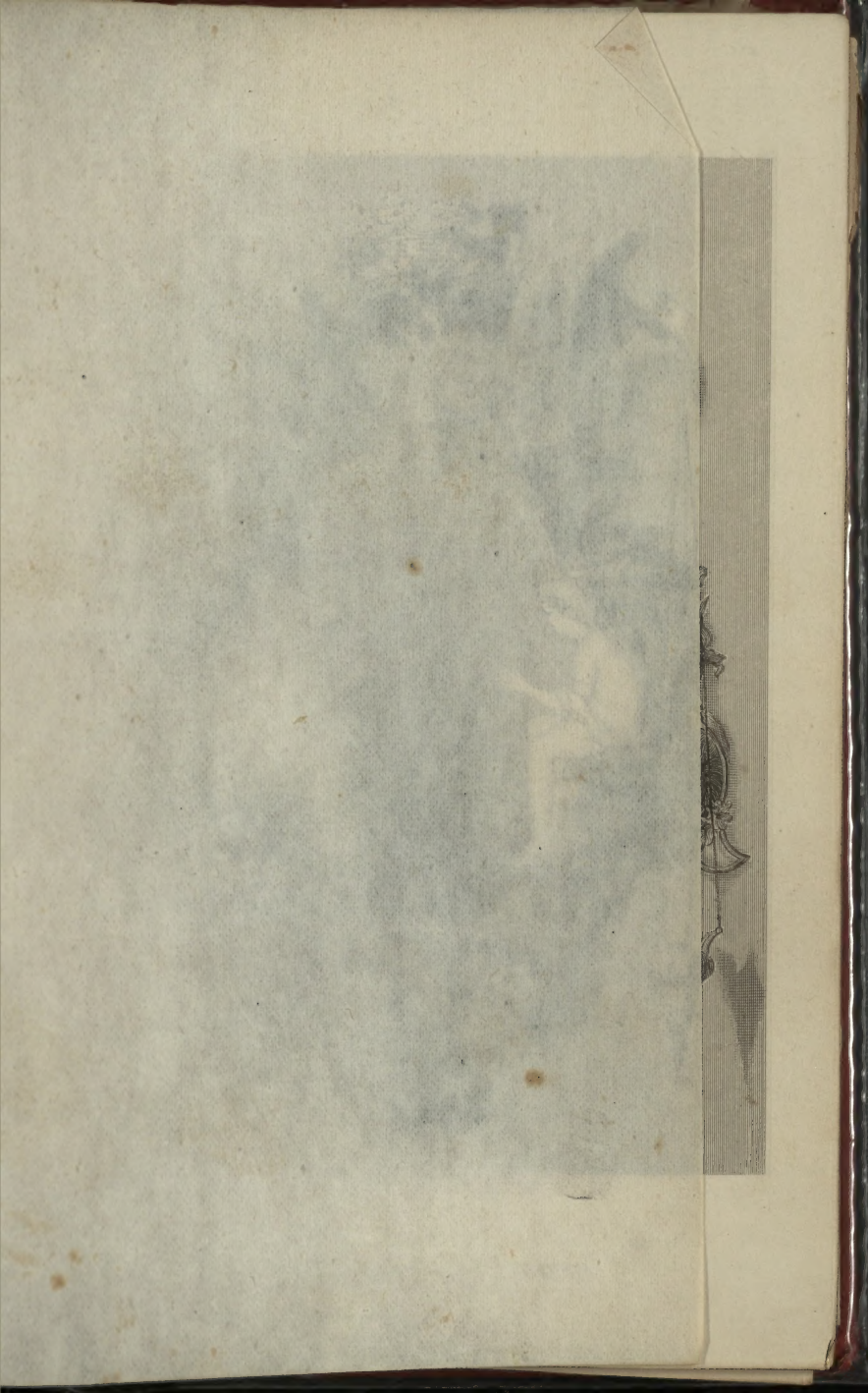




Engraved by G. Gresham, from a Daguerrotype.

WALNUT WOOD CABINET.

MANUFACTURED BY HANSON & SON, OXFORD STREET.





Designed by G. B. Greenleaf, Jr., and J. H. Greenleaf, Jr.

WALNUT WOOD CASE

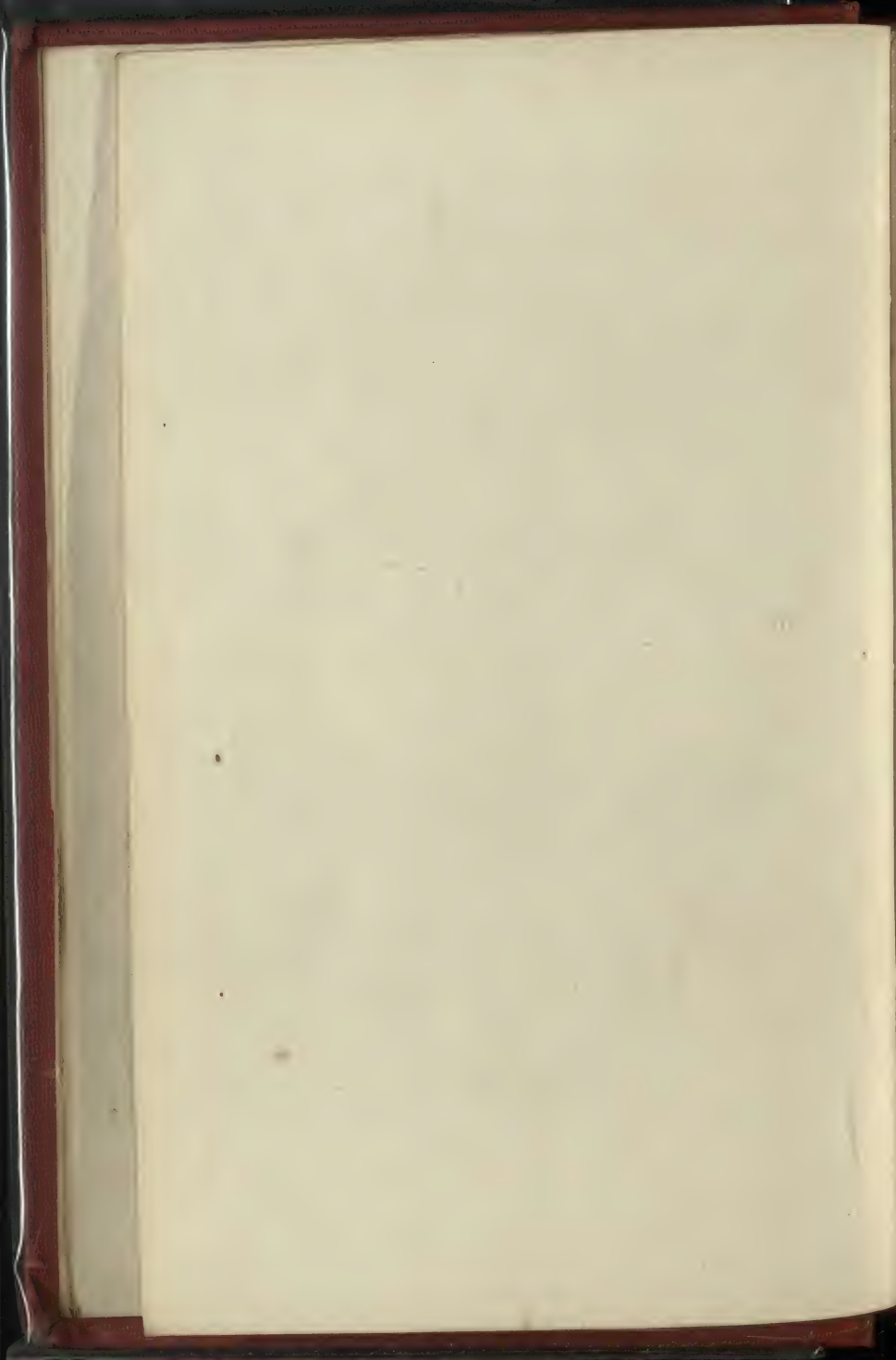
MANUFACTURED BY J. H. GREENLEAF, JR., NEW YORK

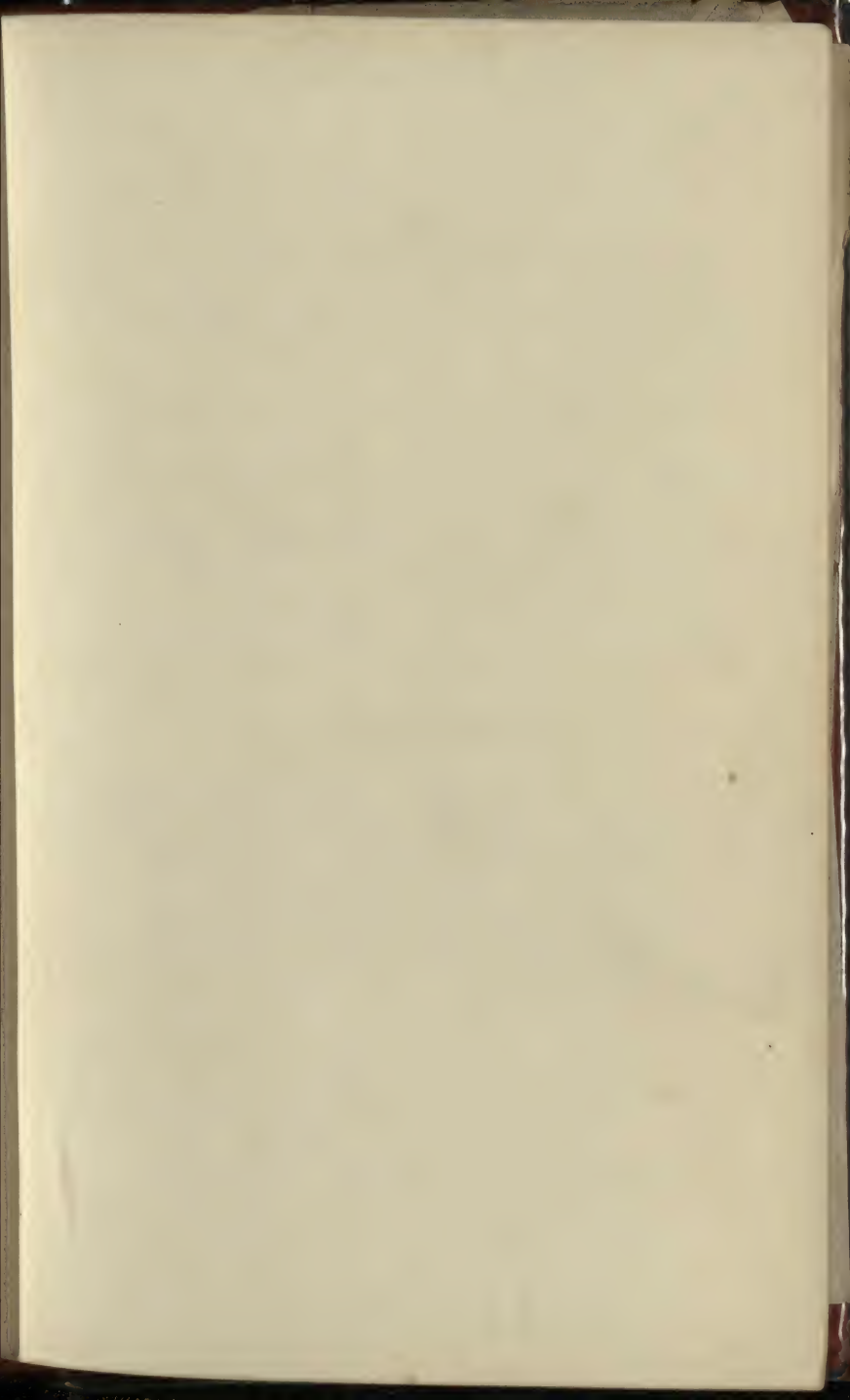


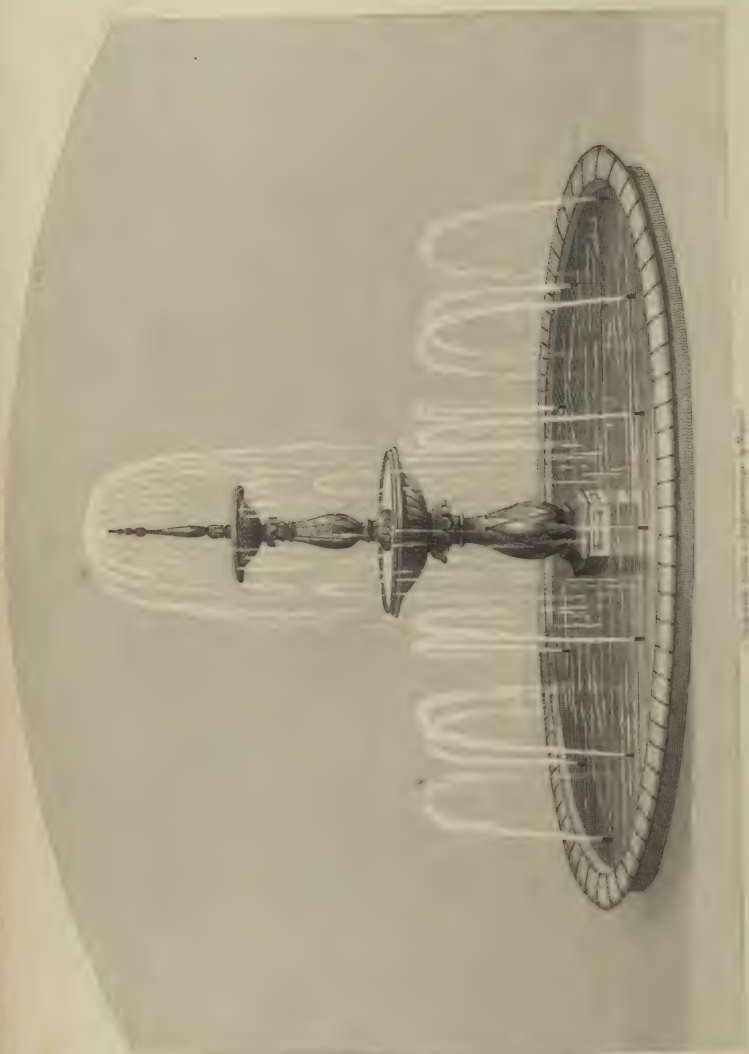
Designed by G. S. Potts, Esq., and J. Potts, Esq.

MIRROR FRAME IN BRONZE.

J. POTTS, BIRMINGHAM.





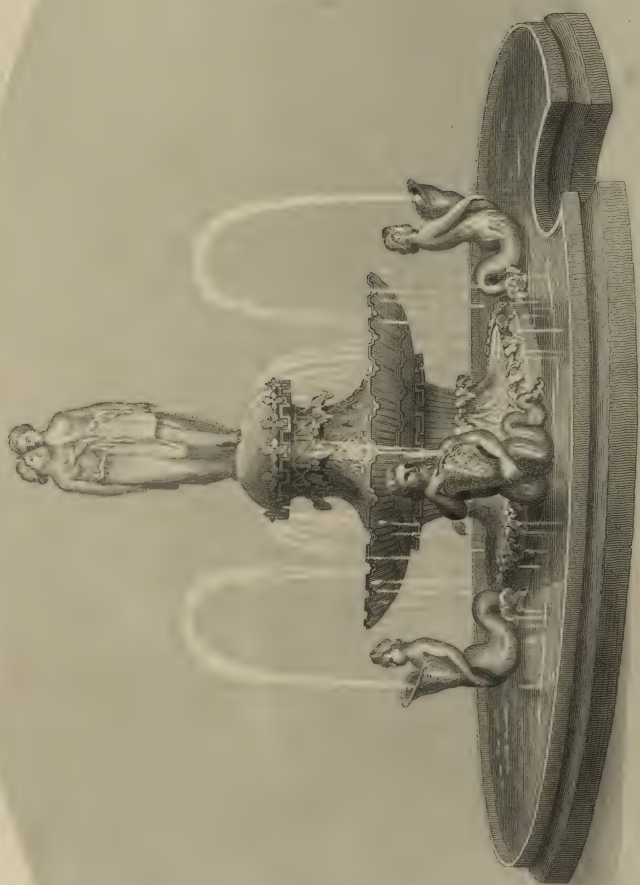


FOUNTAIN — BY FREEM, ROE & HANSON —

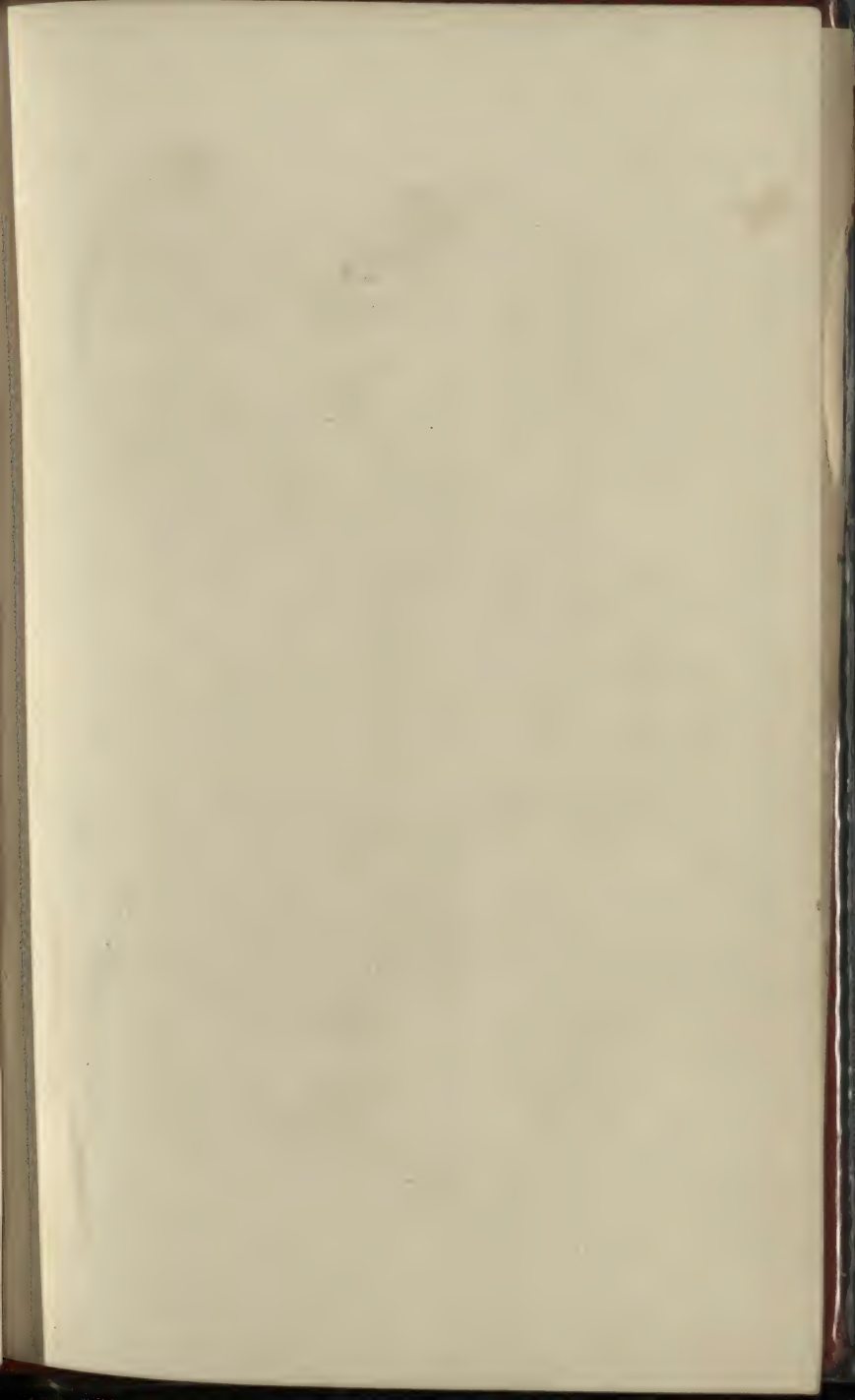
NORTH TRANSEPT.

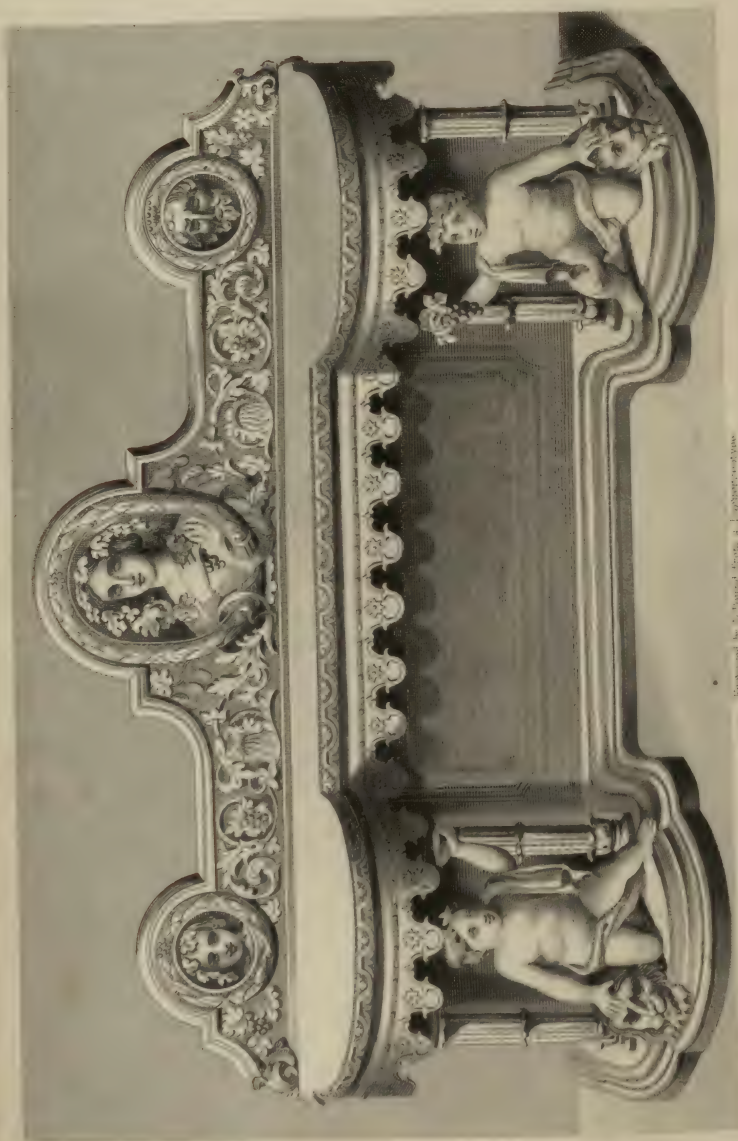






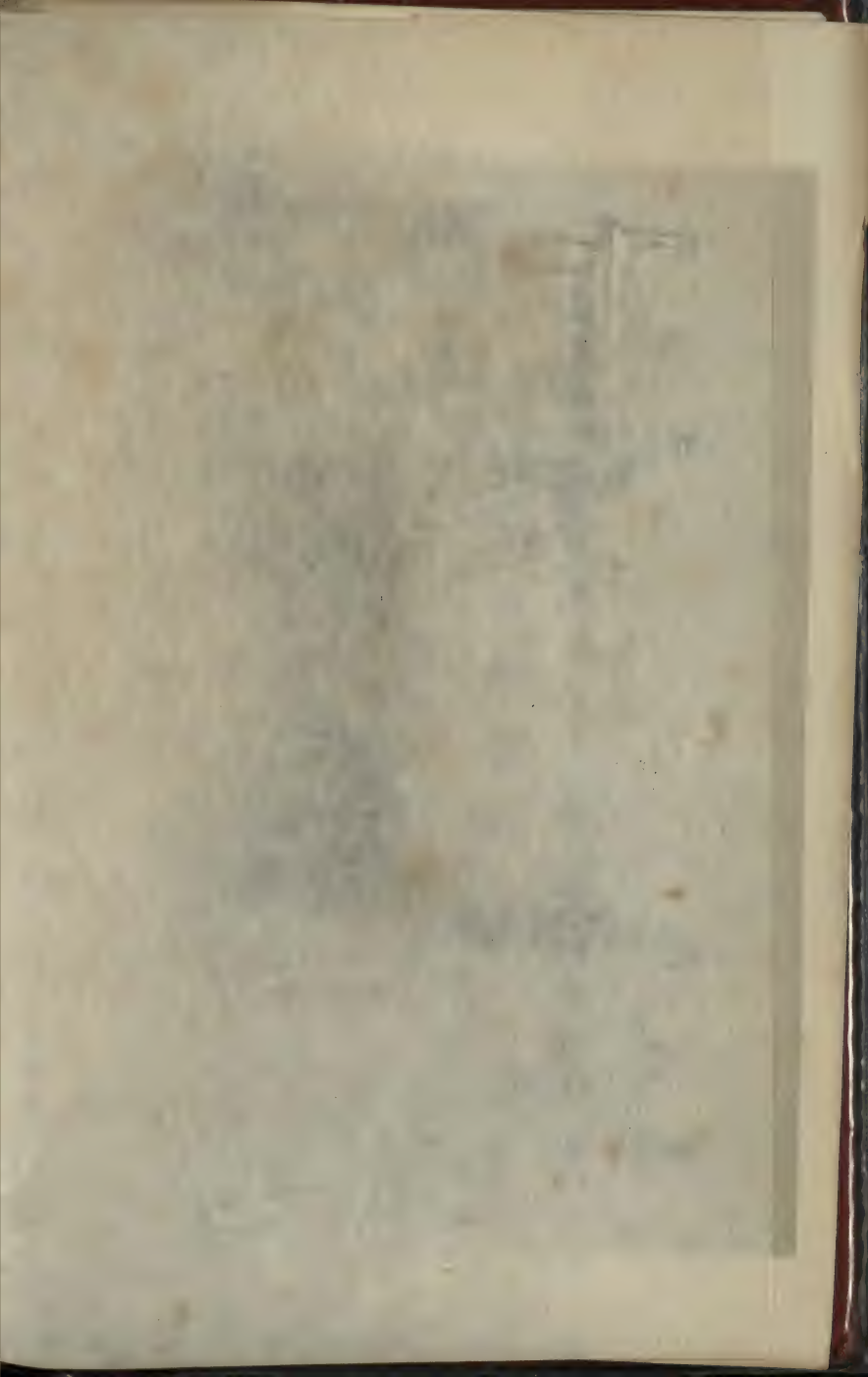
ACIS AND GALATEA — FOUNTAIN



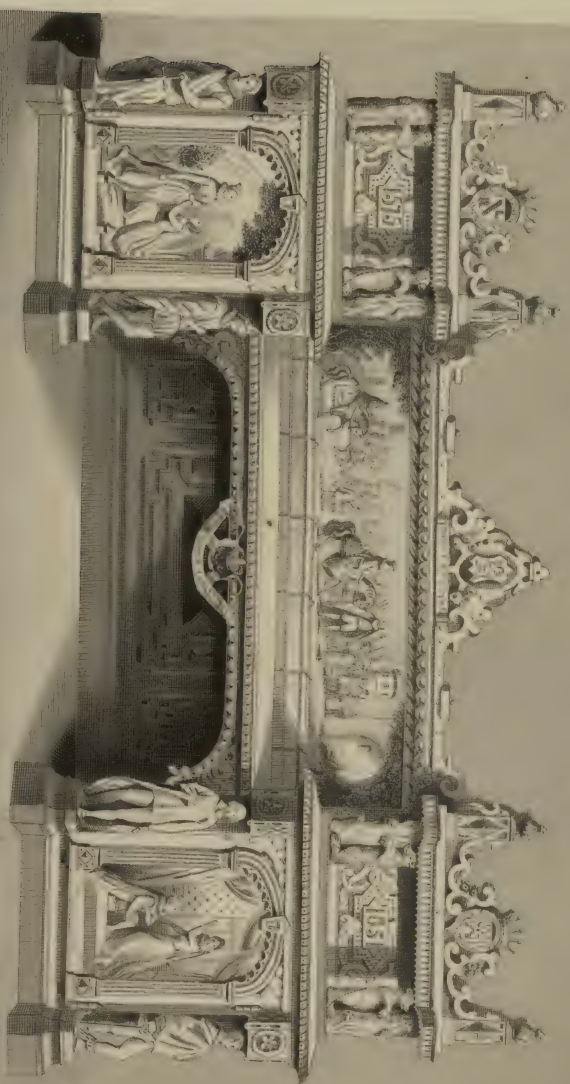


Engraved by J. Taylor from a photograph.

MAHOGANY SIDEBOARD.



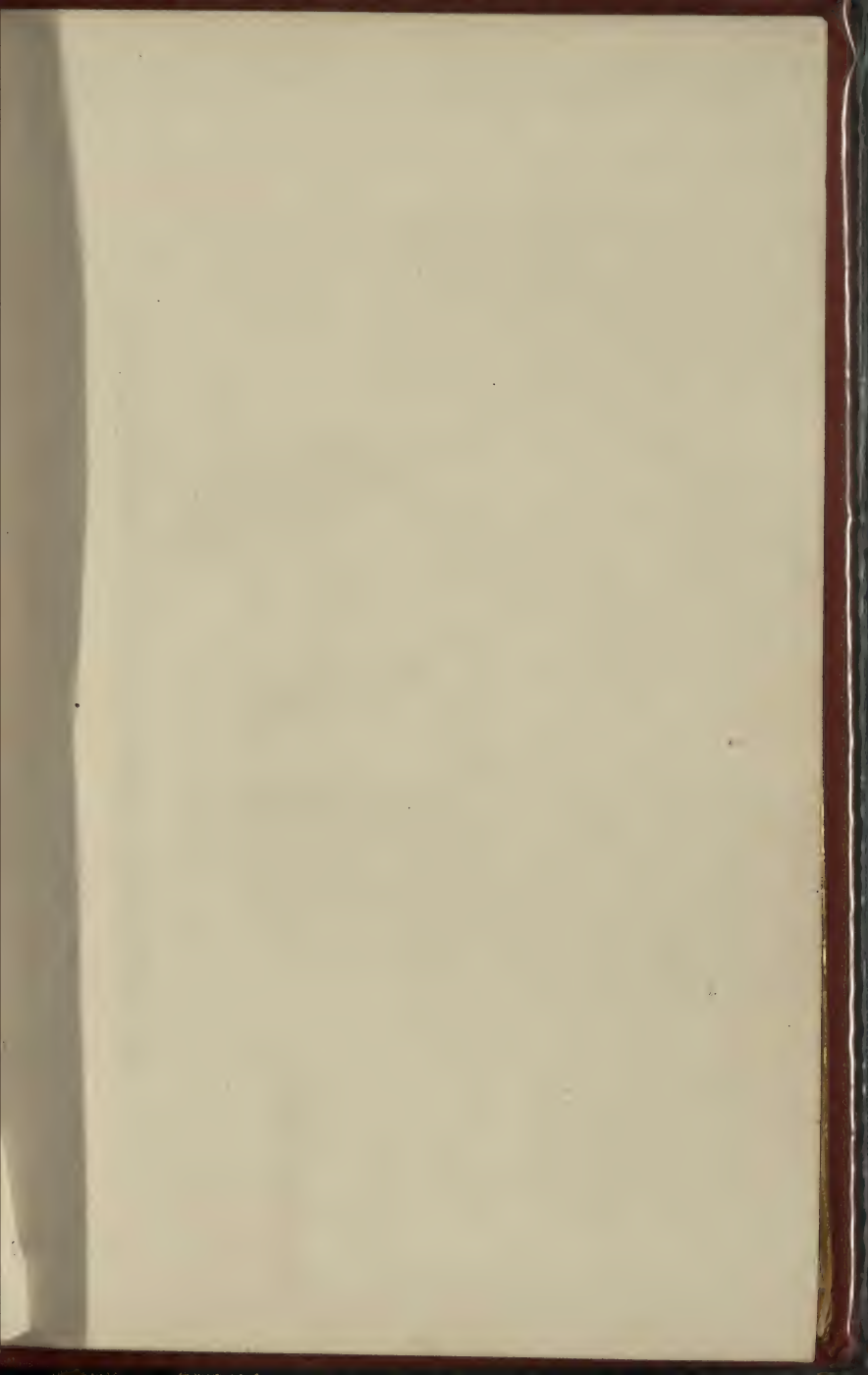




Engraved on 11 bound from a 1855 engraving.

THE KENILWORTH OAK BUFFET.

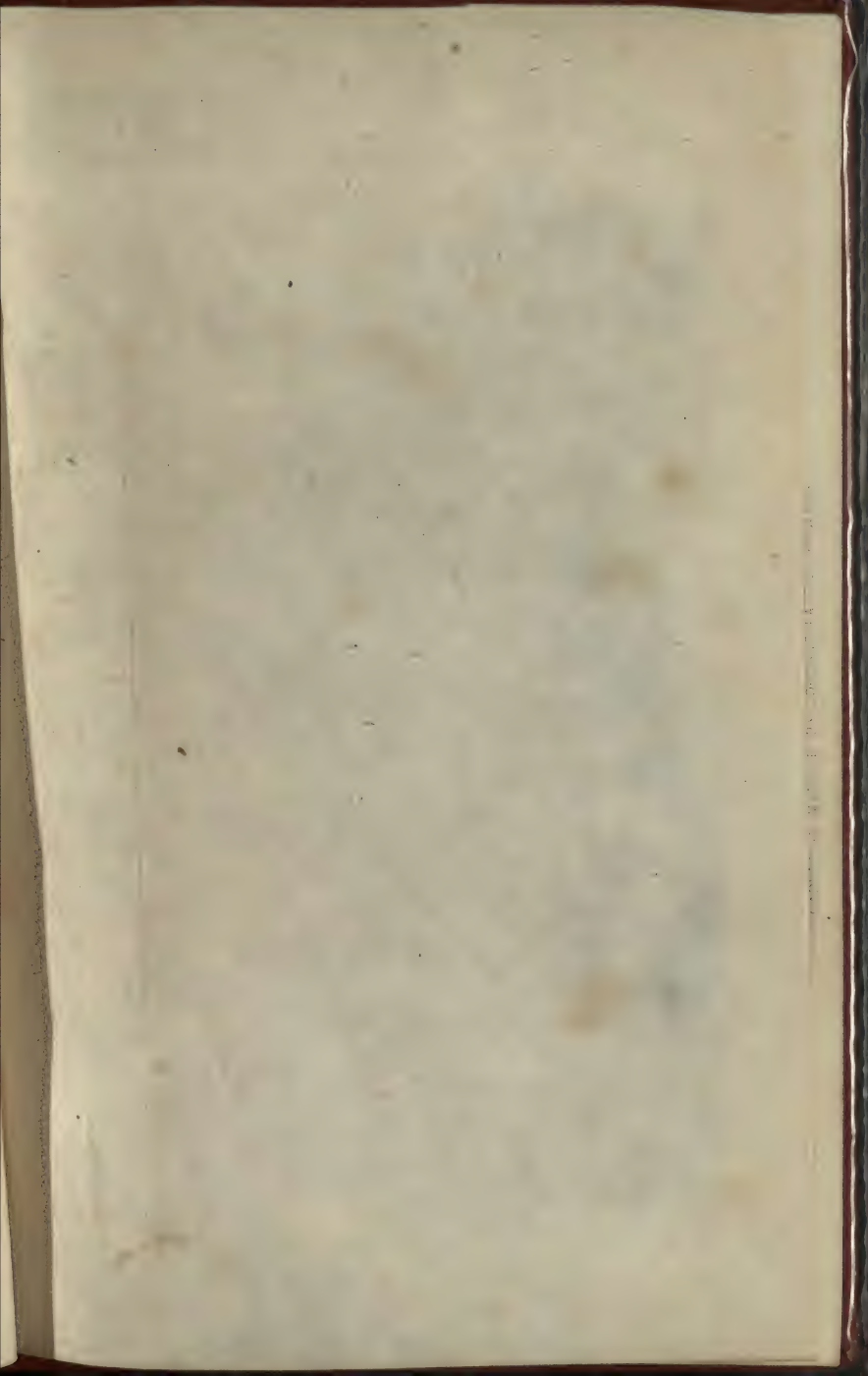
DESIGNED & MANUFACTURED BY MESSRS. GIBBS & SONS.





JOSEPH TRIUMPHANT

A SCULPTURE BY ANTONIO CANOVA, AND THE PROPERTY OF THE ROYAL ACADEMY OF ARTS, LONDON.

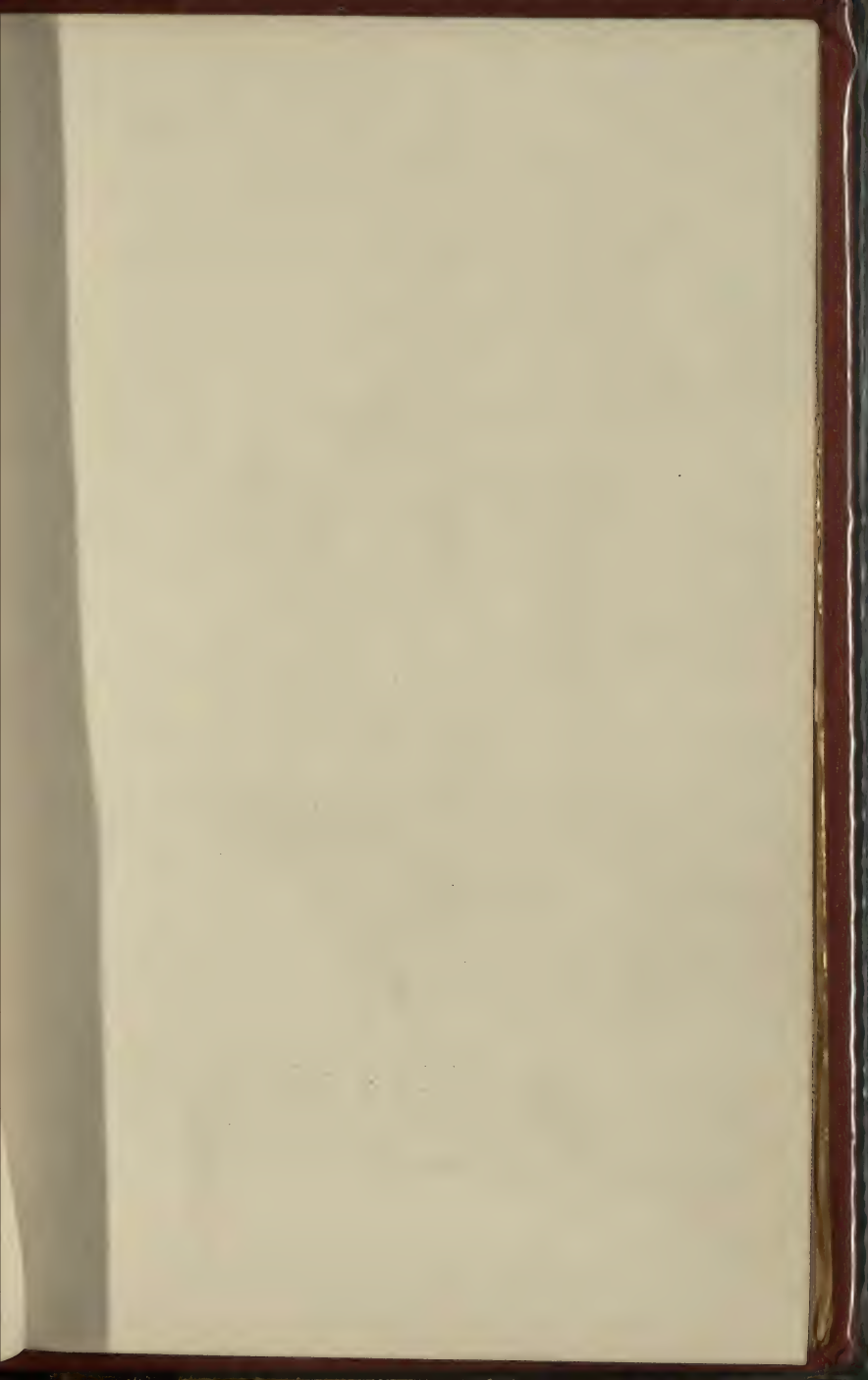






HERMÈS BACCHUS

DESIGN BY J. B. H. 1800. ENGRAVED BY J. B. H. 1800.





THE TRIUMPH OF THE ARTS AND SCIENCES

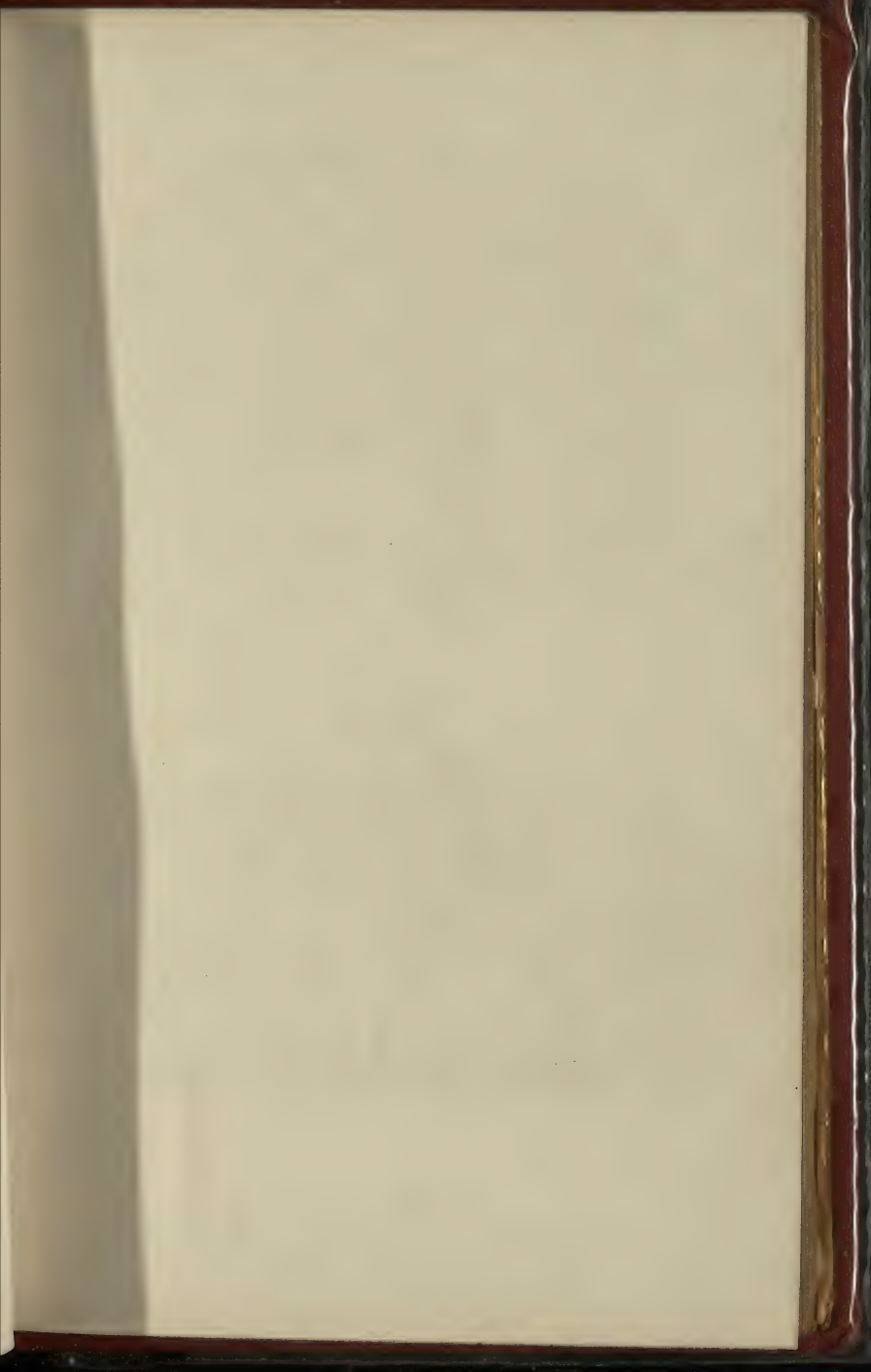
BY J. B. COOPER





SILVER VASE.

MILITARY AFFAIRS





Engraving from the original design by J. M. W. Turner

THE EAGLE SLAYER

THE EAGLE SLAYER BY THE GALATHEA GALLERY

DESIGNED BY J. M. W. TURNER



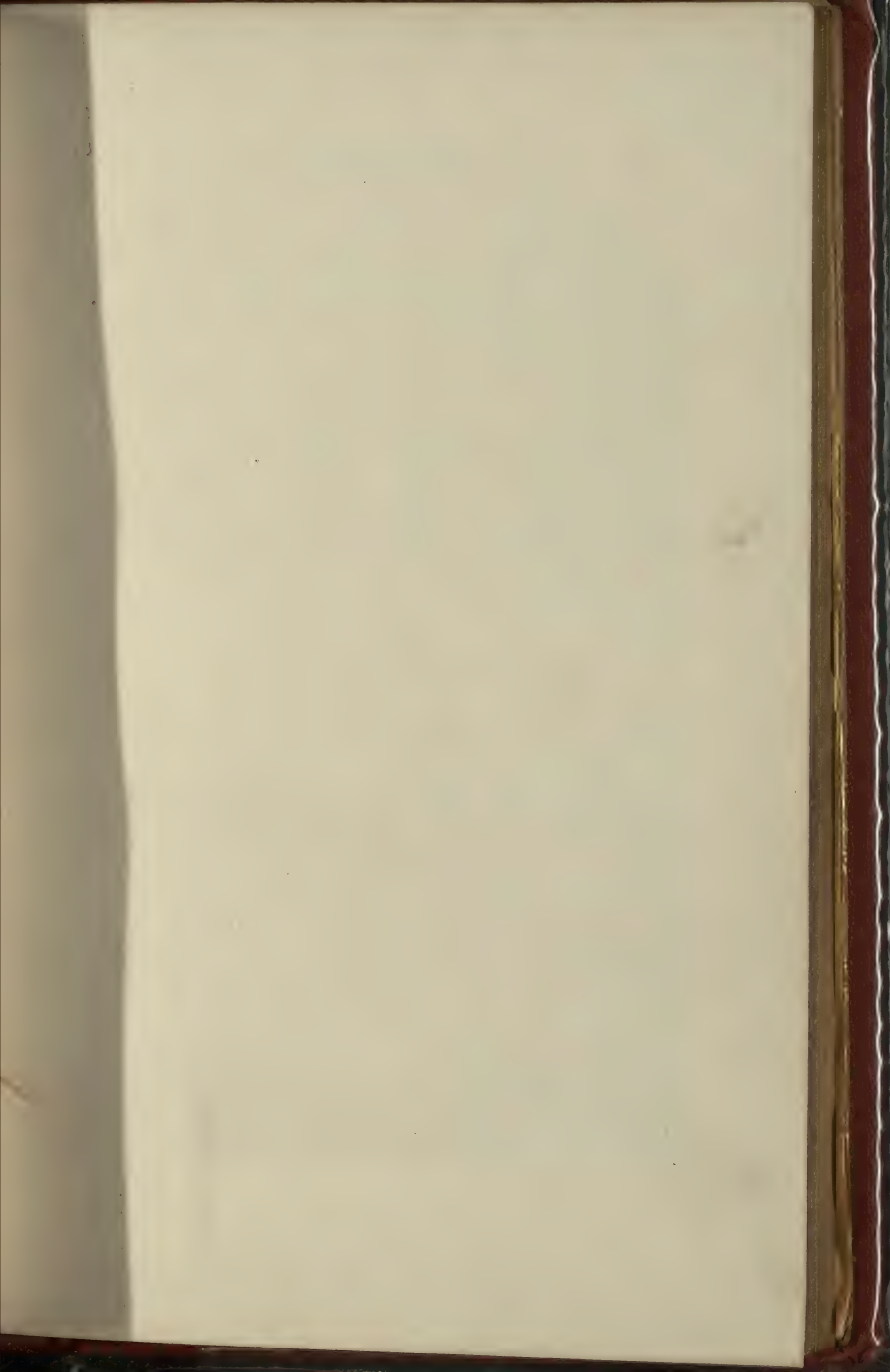


THE SEATED VIRGIN
BY A. C. COLEMAN, 1850
No. 100



Engraved by William Turner from the original by D. Brucciani.

APOLLO, BELVEDERE.
FROM THE ORIGINAL OF D. BRUCCIANI.





Engraved by G. S. Jones and Sculptured by John Gibson

H. R. H. PRINCE ALFRED

IN THE CHARACTER OF AUTUMN



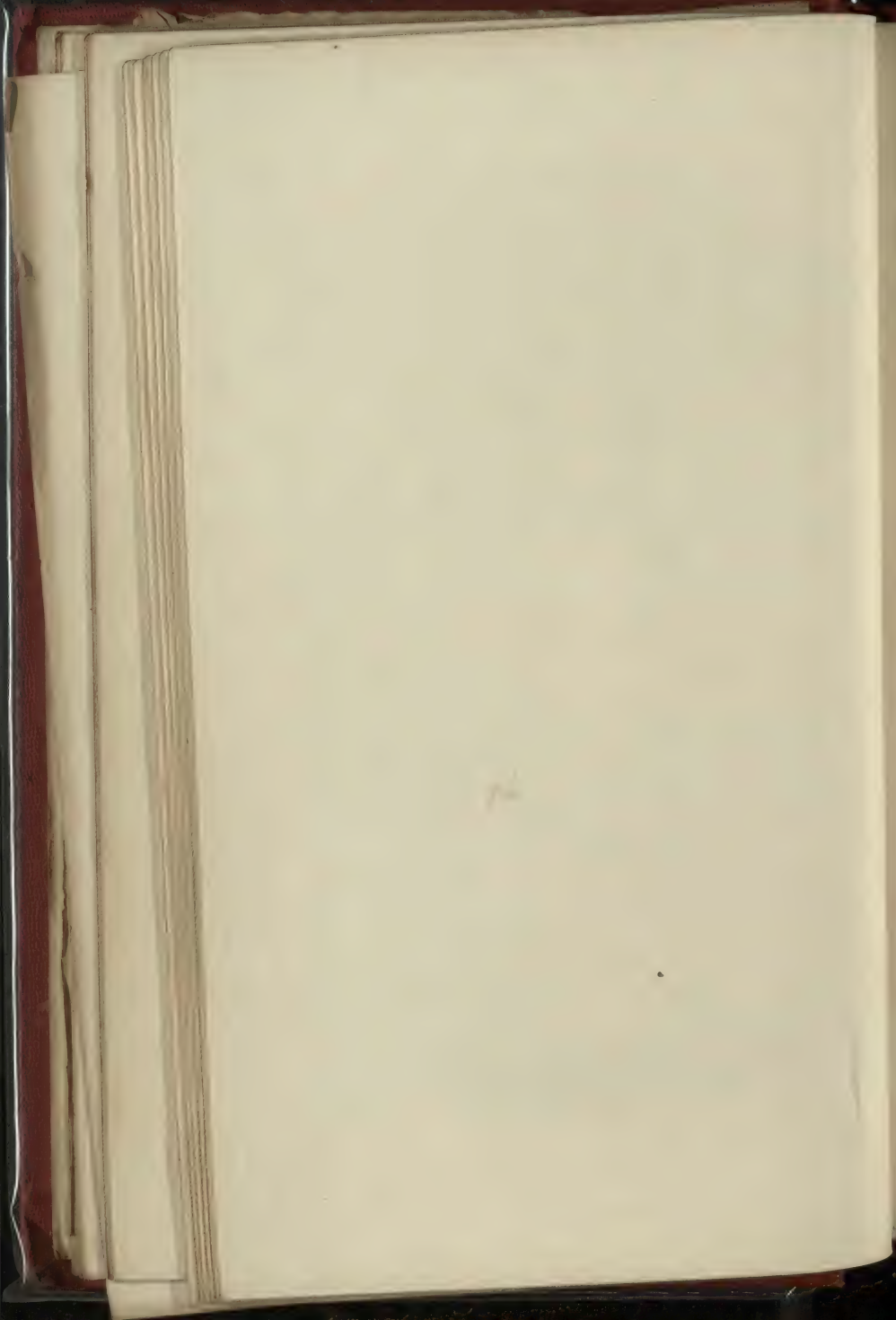


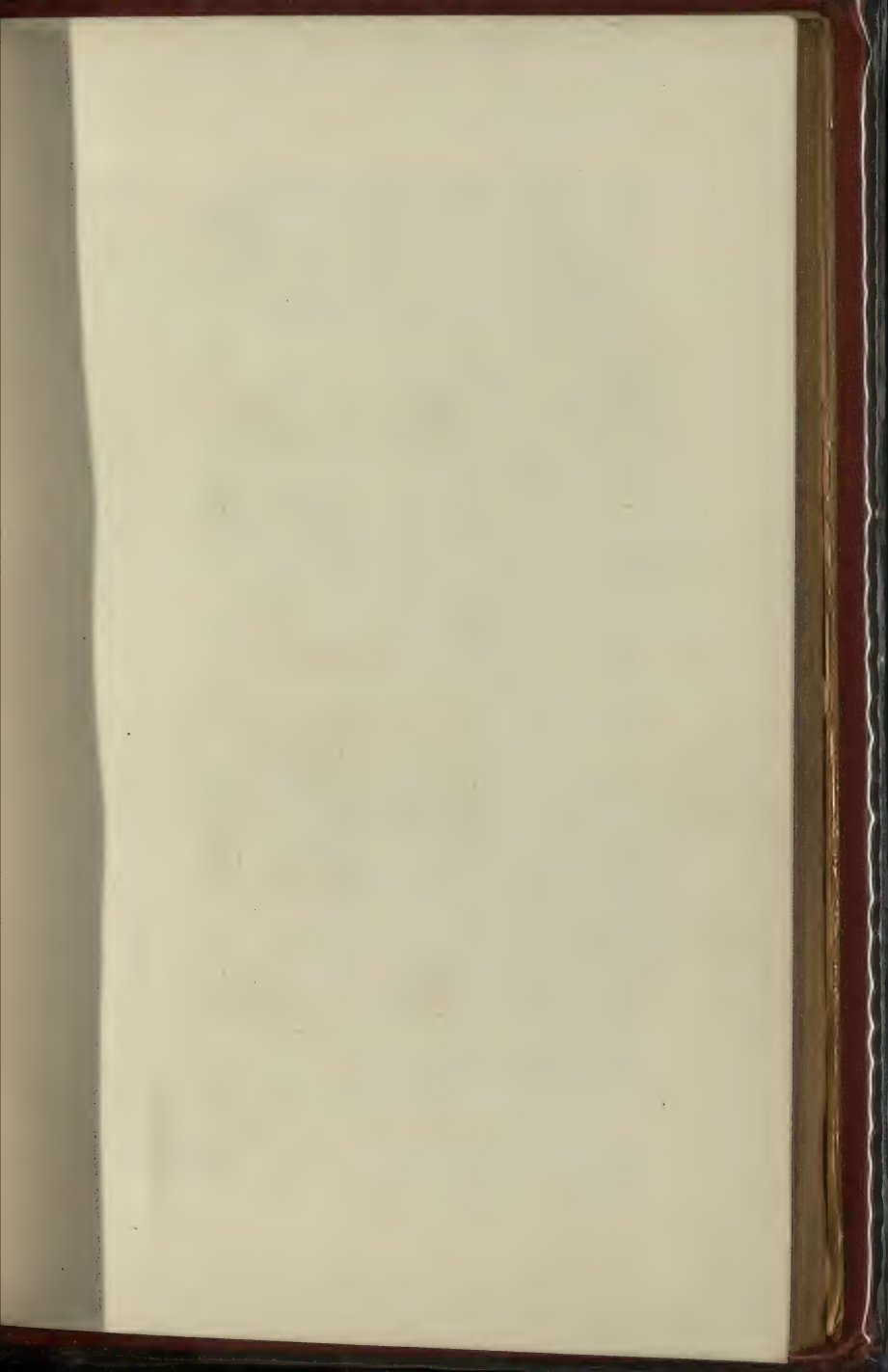
THE CHILD OF LOVE
BY J. H. W. L. L. L.



H. R. H. PRINCE ARTHUR

IN THE CHARACTER OF SPRING.

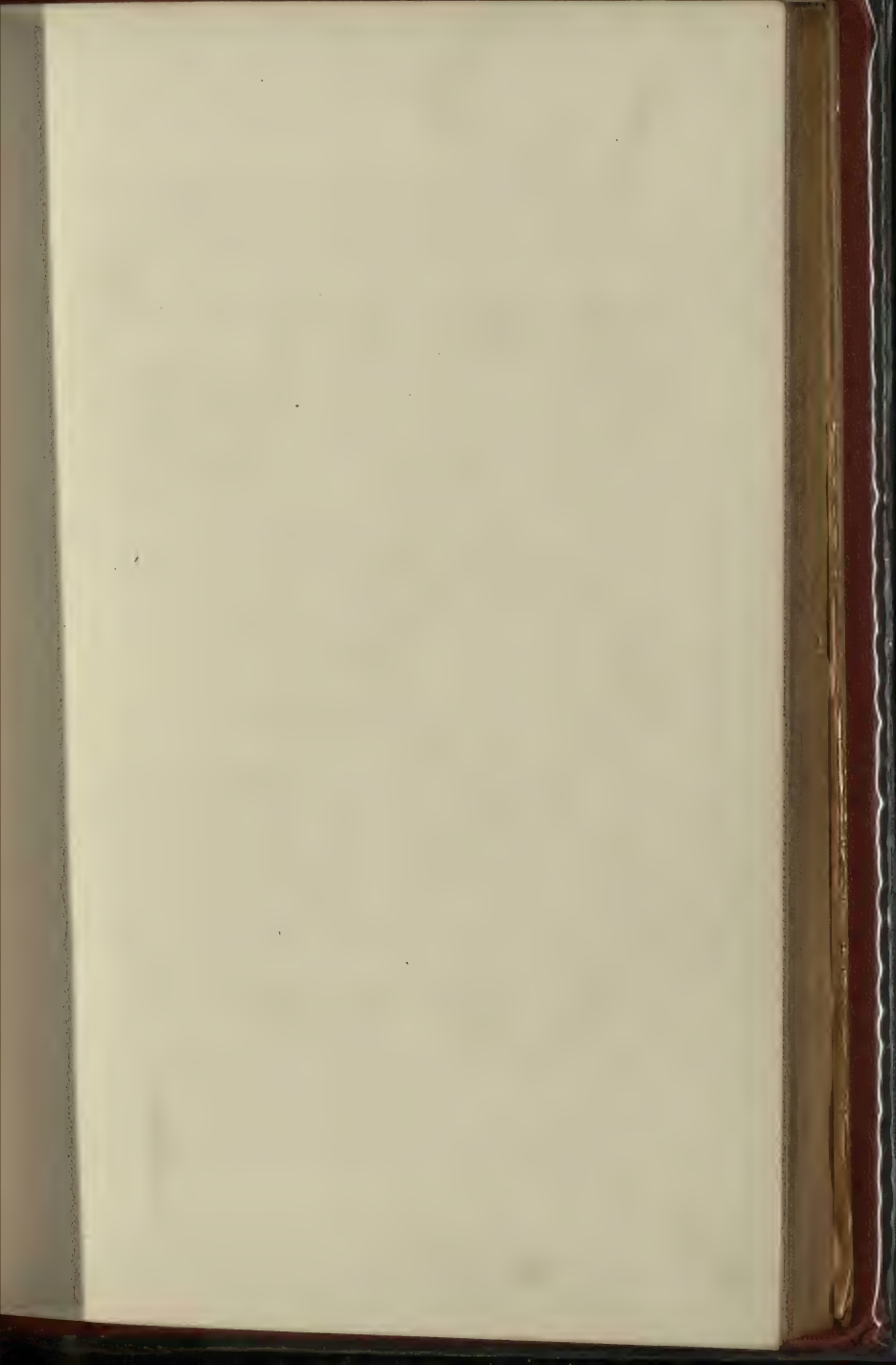


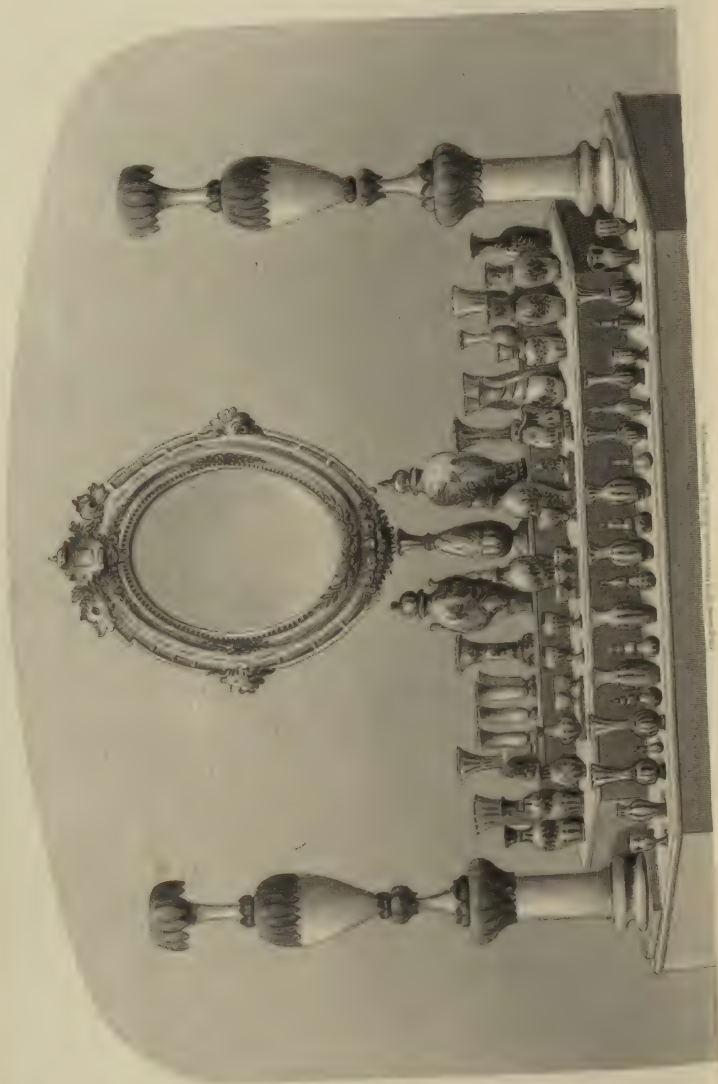


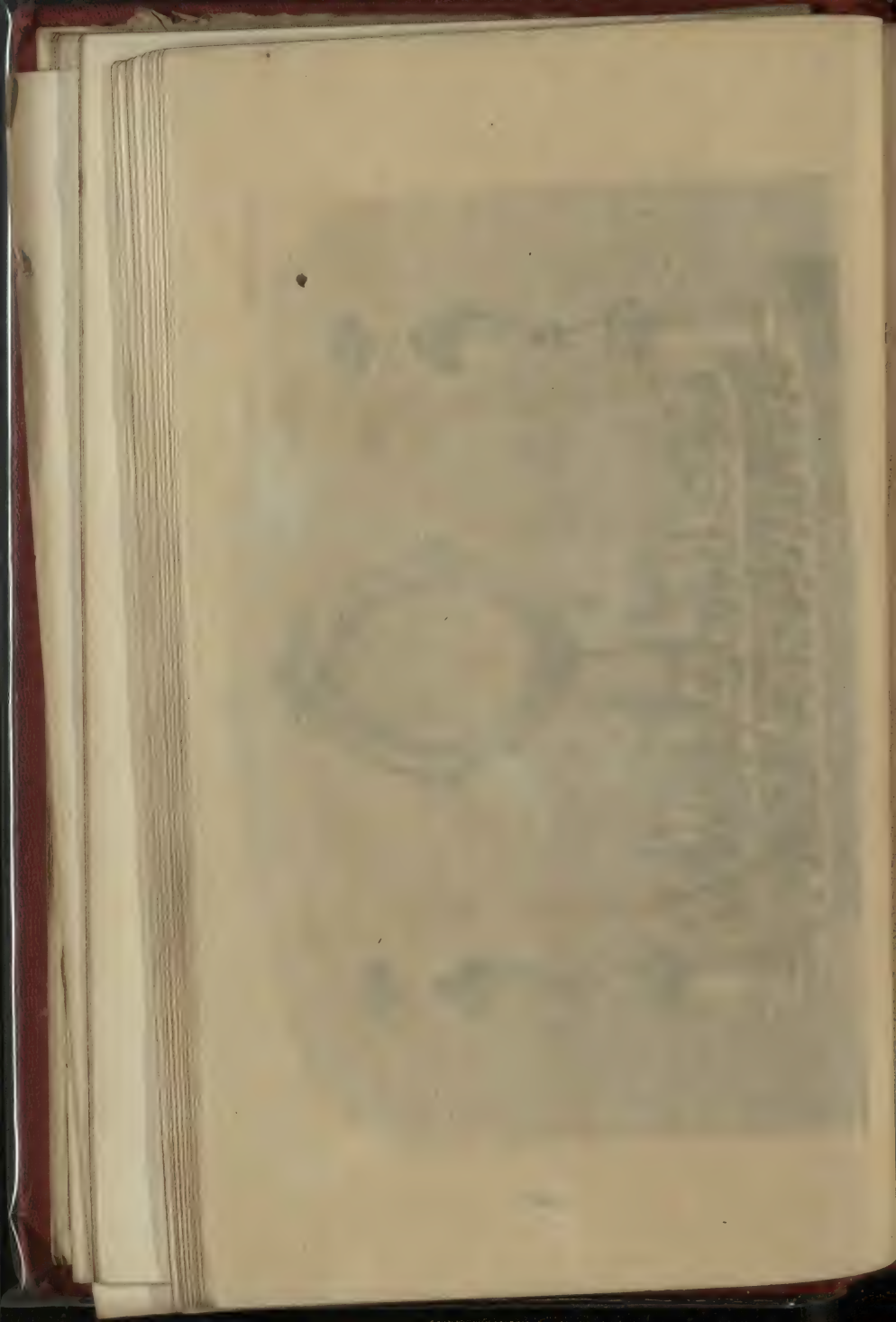


通鑑纂要









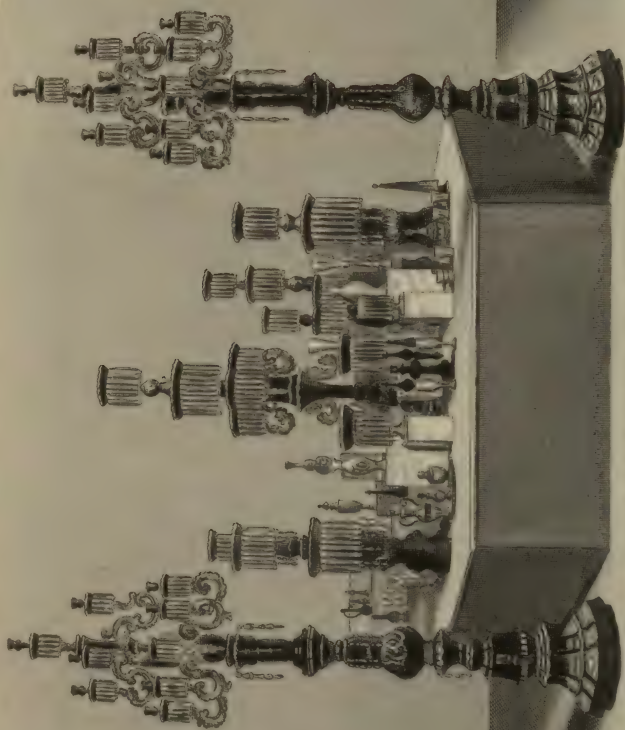
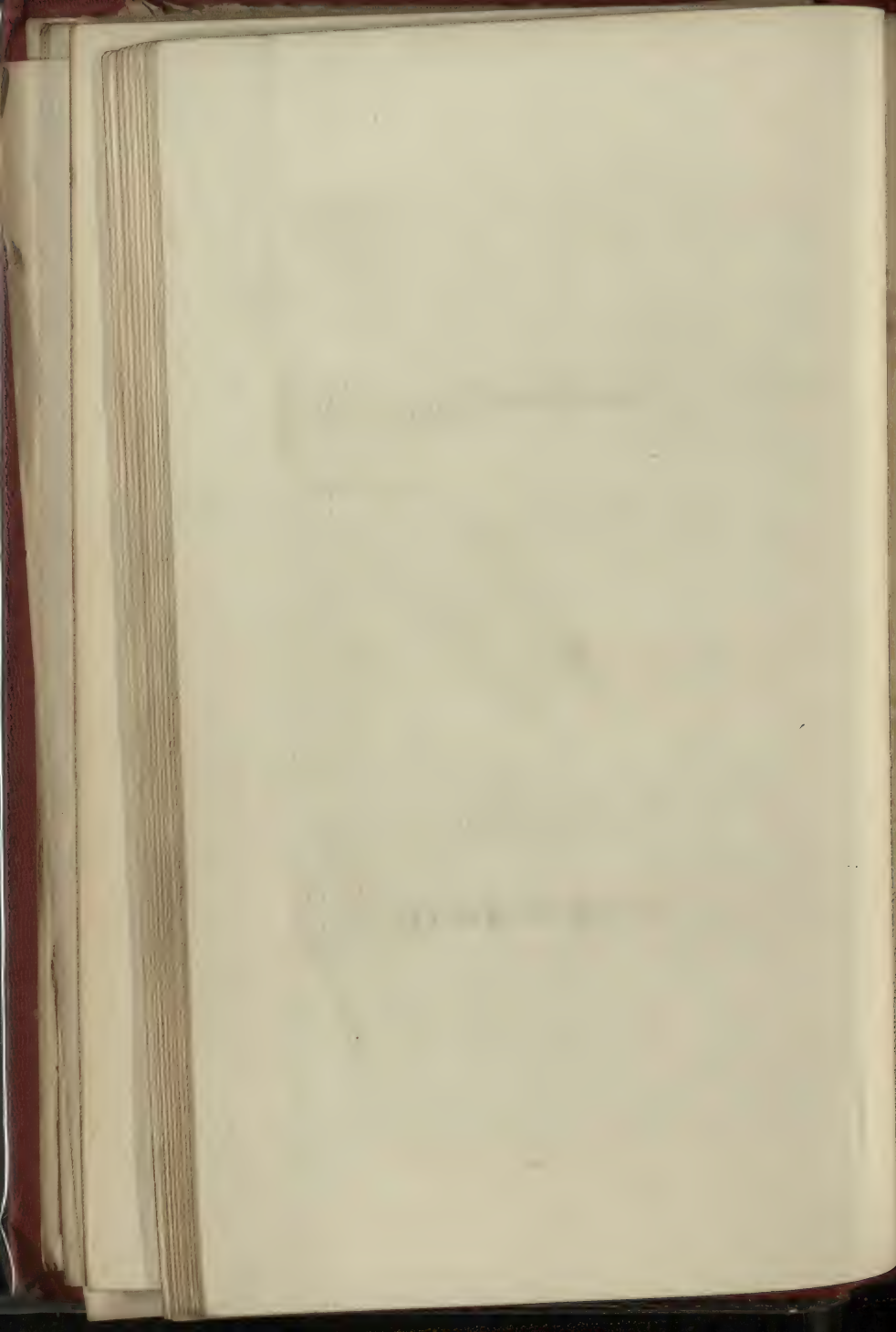
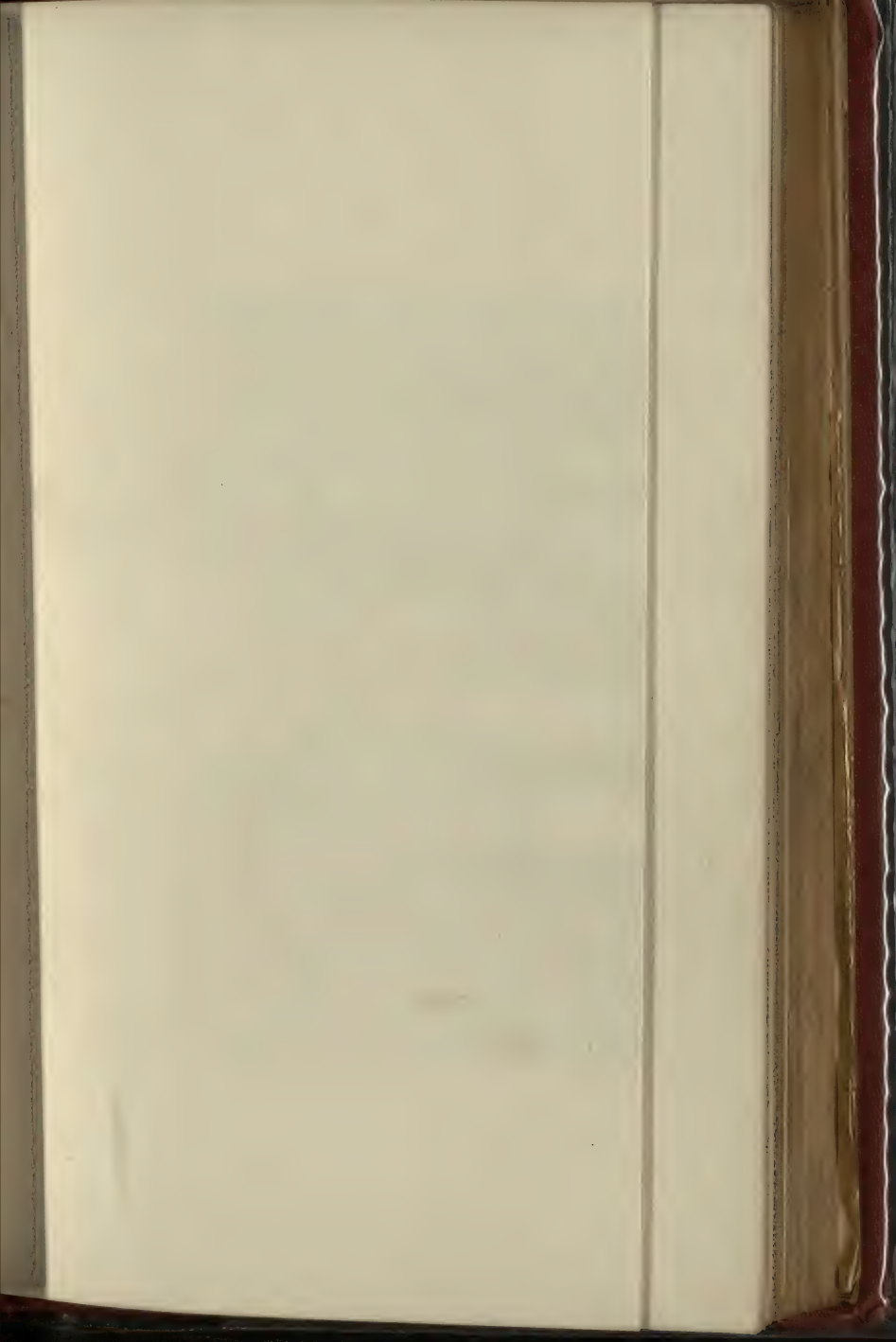


Illustration of various lamps and chandeliers.

CHANDELIERS IN COATED GLASS

EXHIBITED AT THE GREAT EXHIBITION





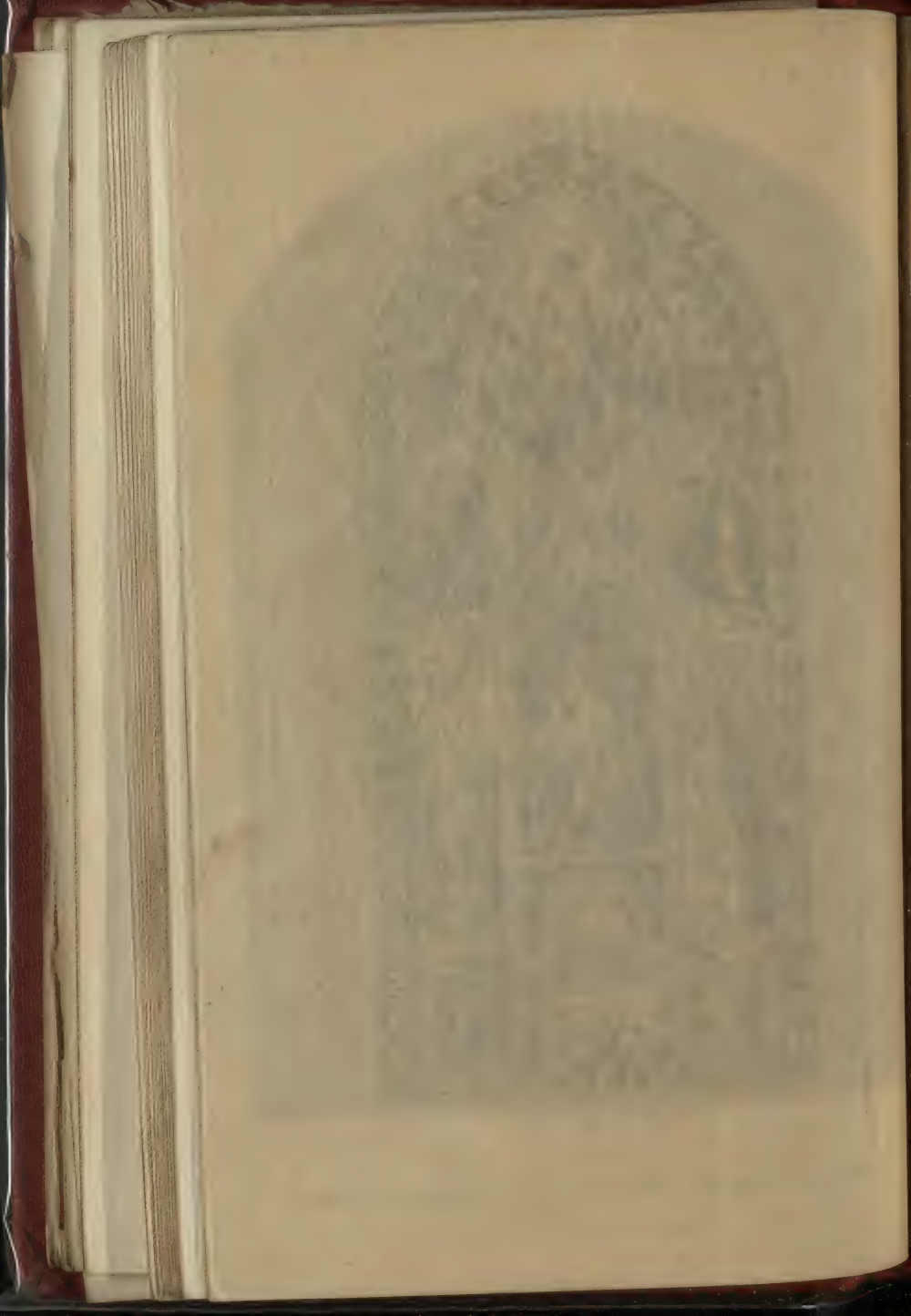


Engraved by J. Russell from the original Statue by J. Nolle.

THE DUKE OF WELLINGTON.

From the Statue of the Duke in the House of Commons.
 The Duke of Wellington is represented in the House of Commons.







Designed by the late Mr. J. H. Stanger, F.R.S.

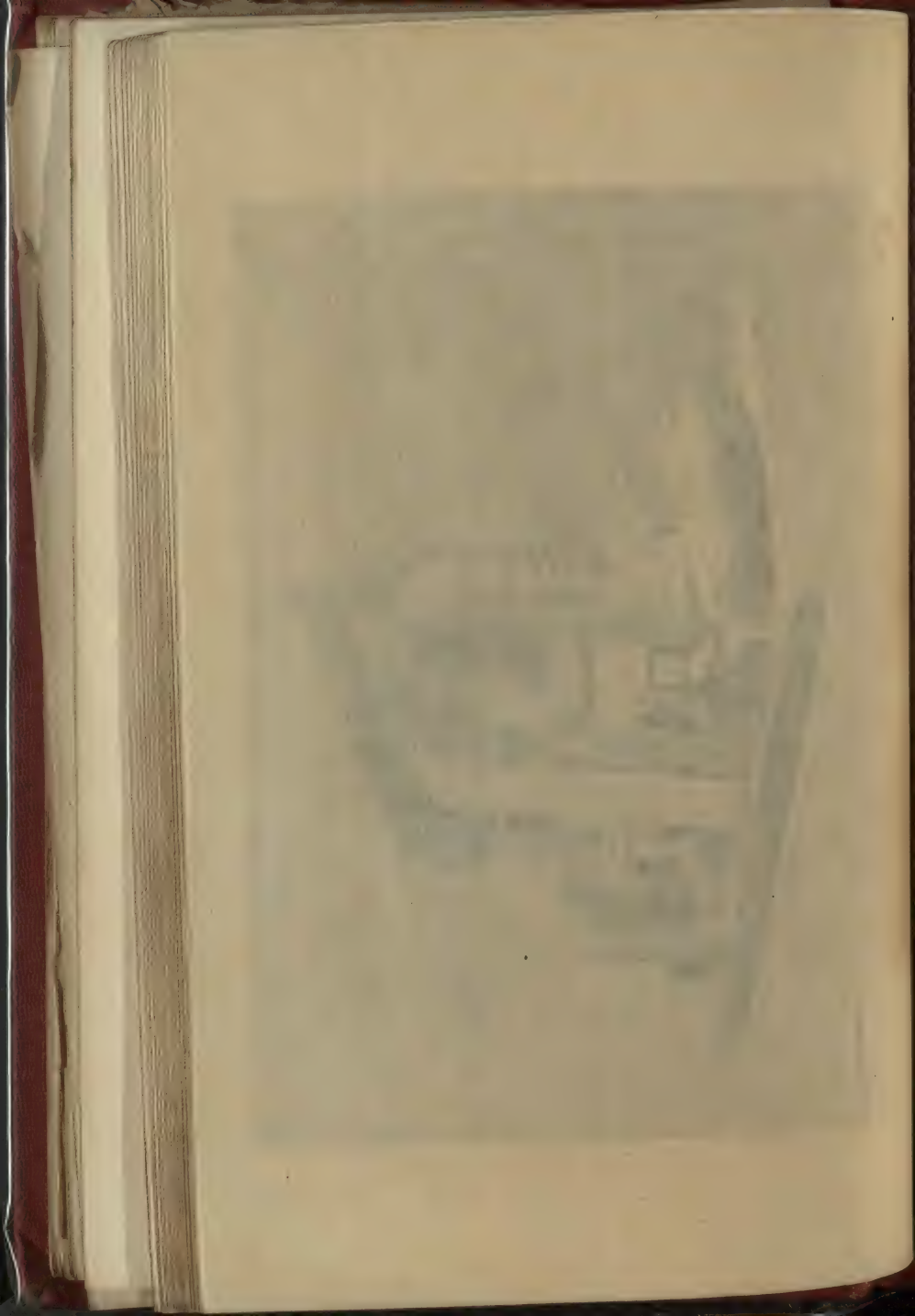
STAINED GLASS WINDOW

THE LIFE OF ST. PETER

THE LATE MR. J. H. STANGER, F.R.S.



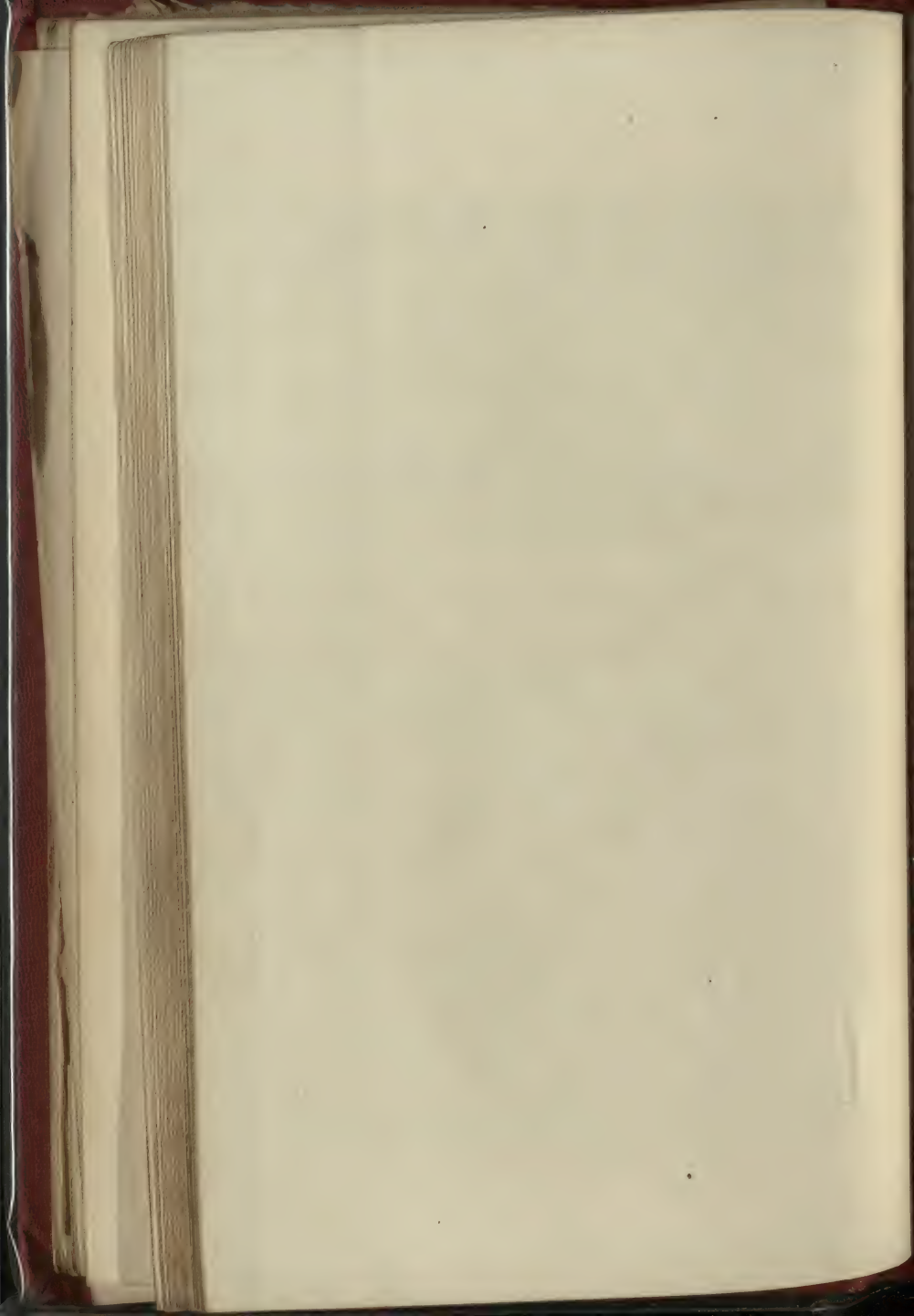


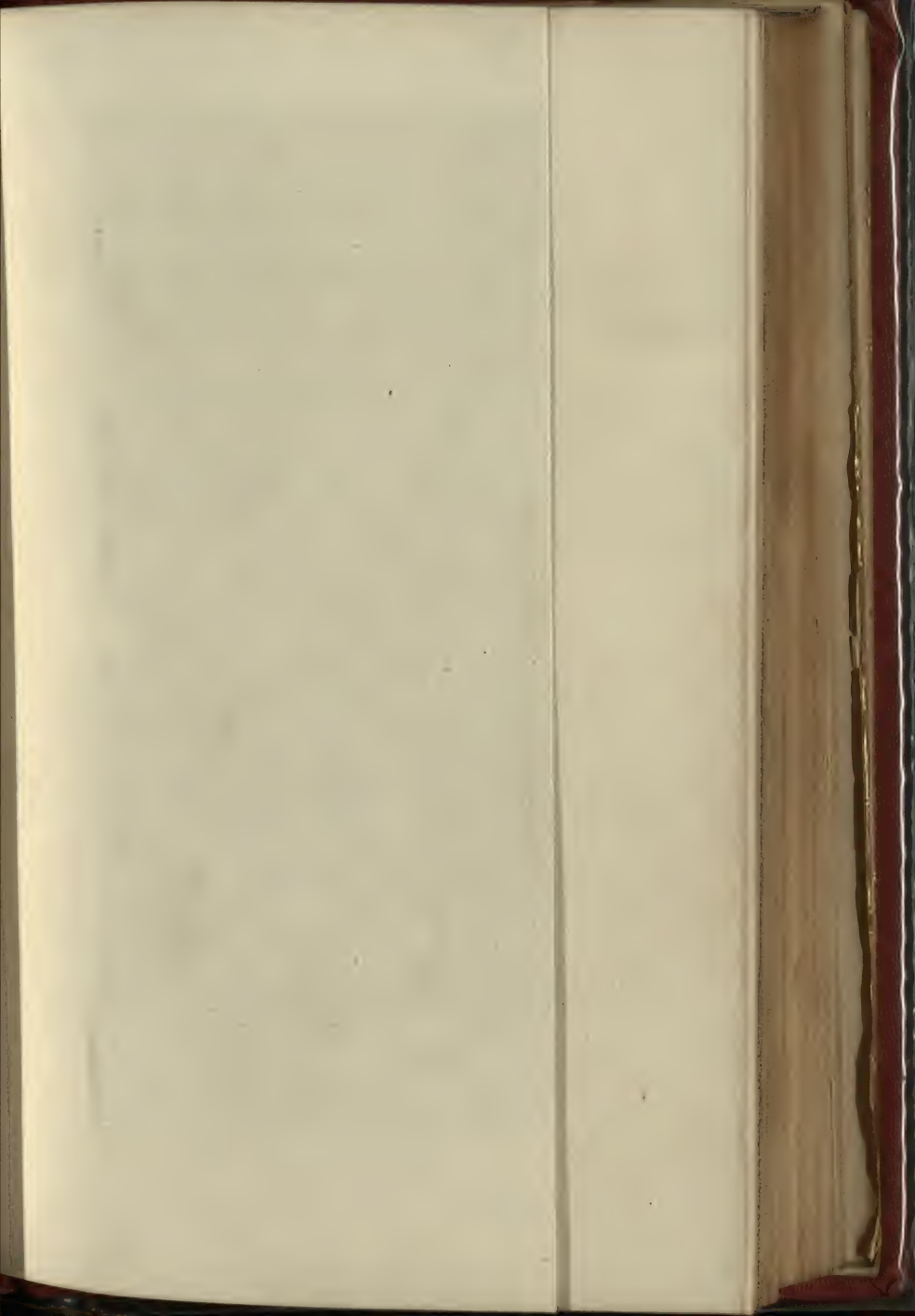


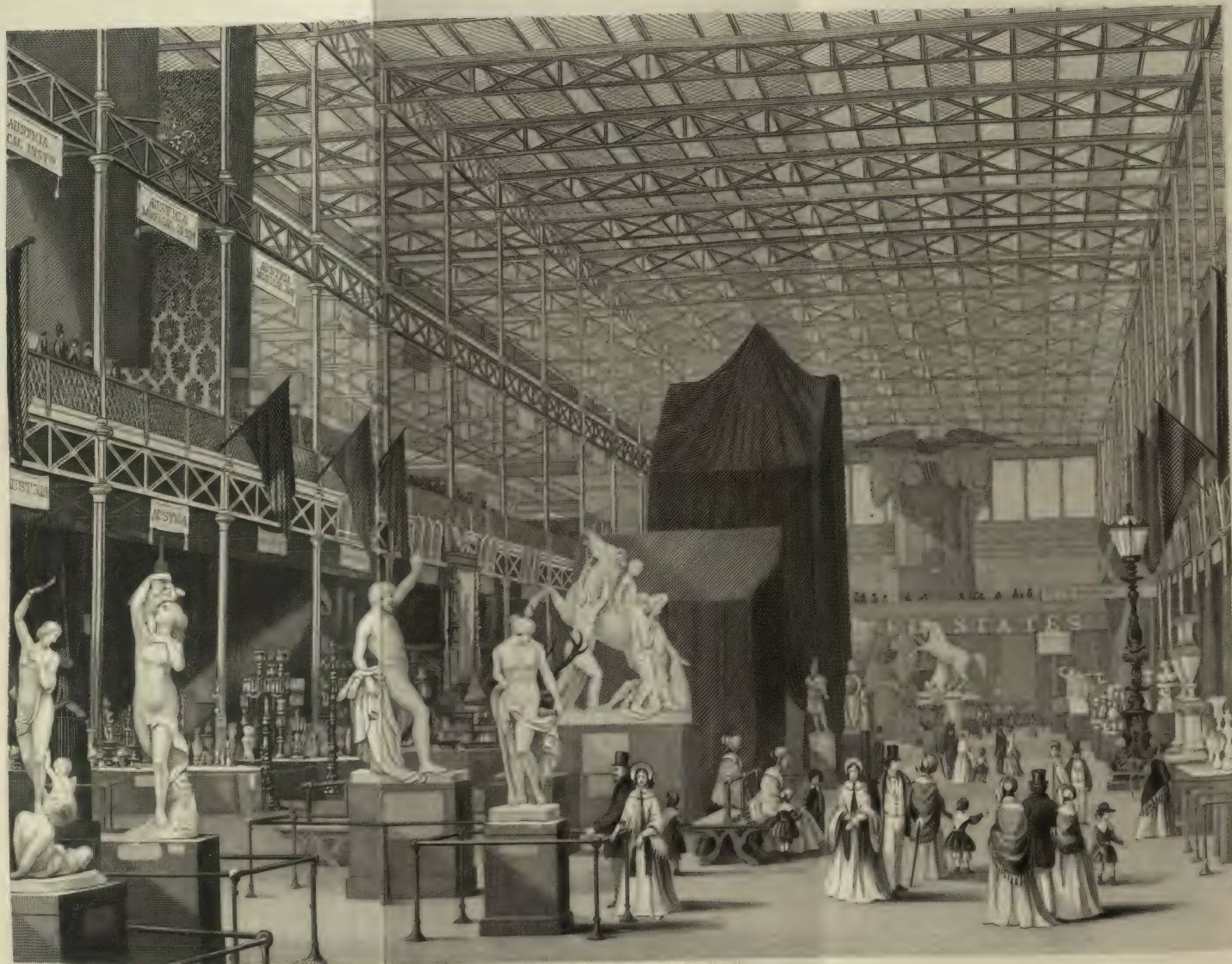


Model of a schooner, 1880.

PLATE TEN



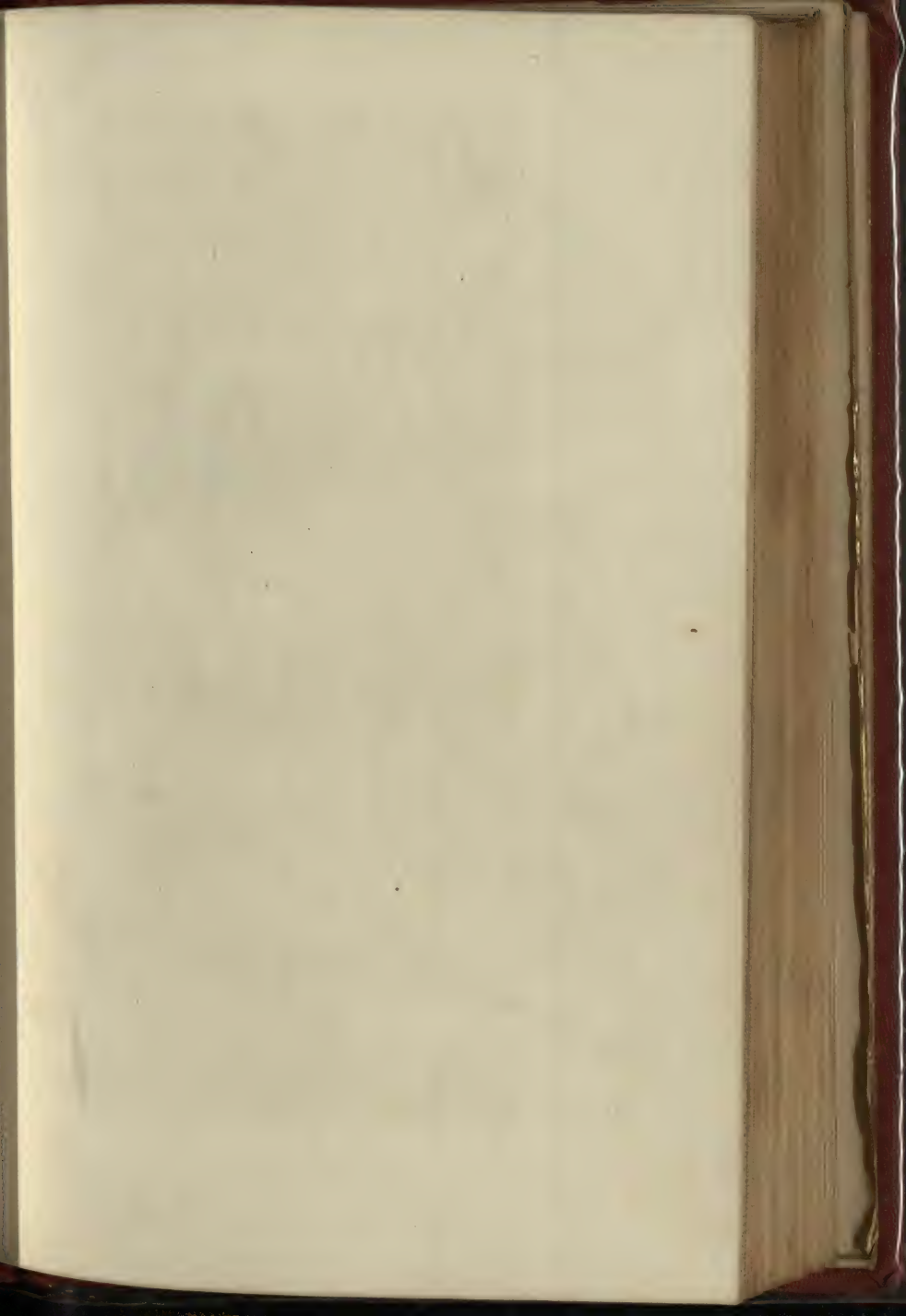




engraved by J. G. Smith & Co. London & New York

GREAT EXHIBITION, MANHATTAN AVENUE.

LOOKING EAST





Figured by the French, and in the same manner.

LADY'S WORK TABLE

DESIGNED AND MANUFACTURED BY MESSRS WHITE & PARLEY

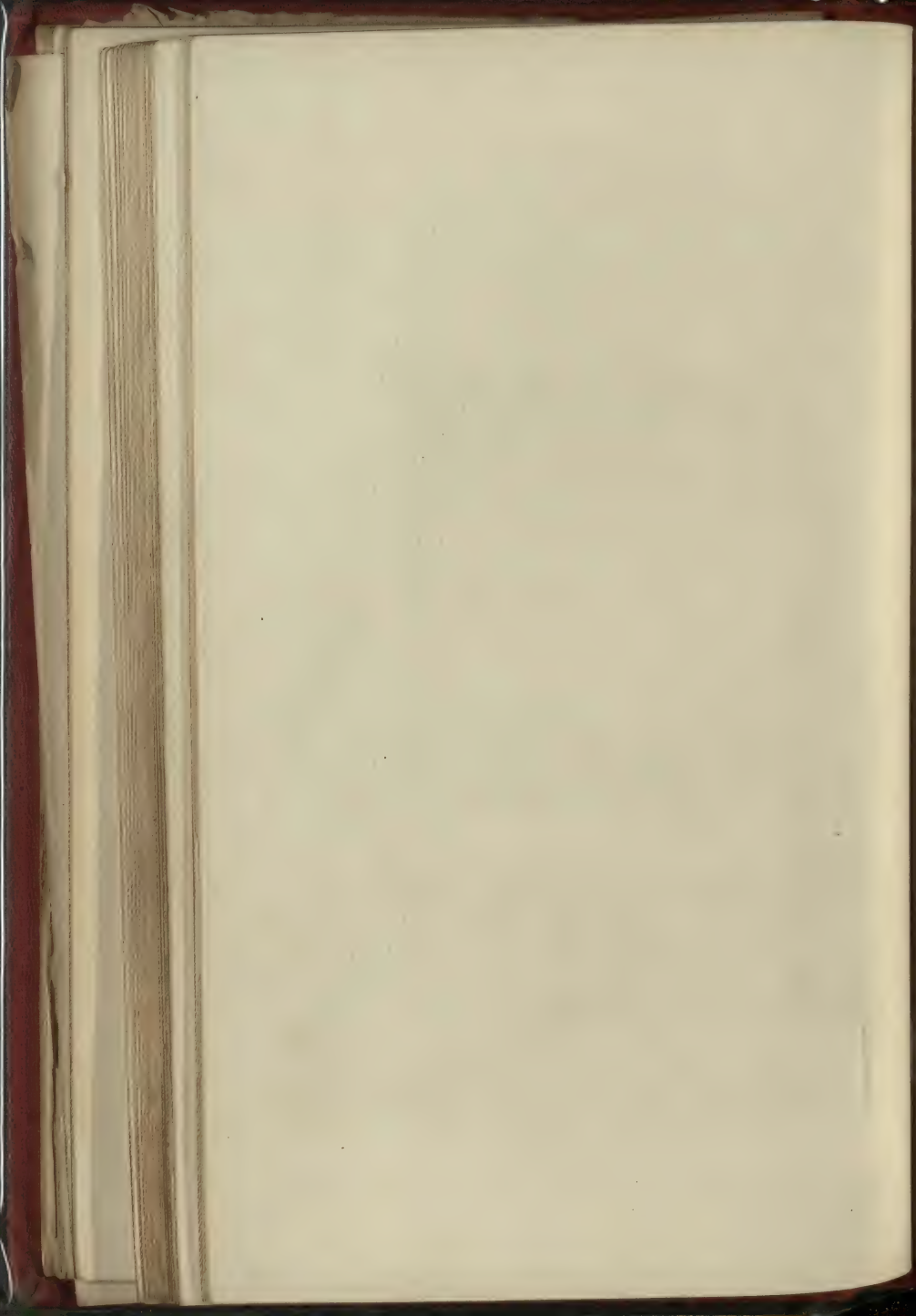


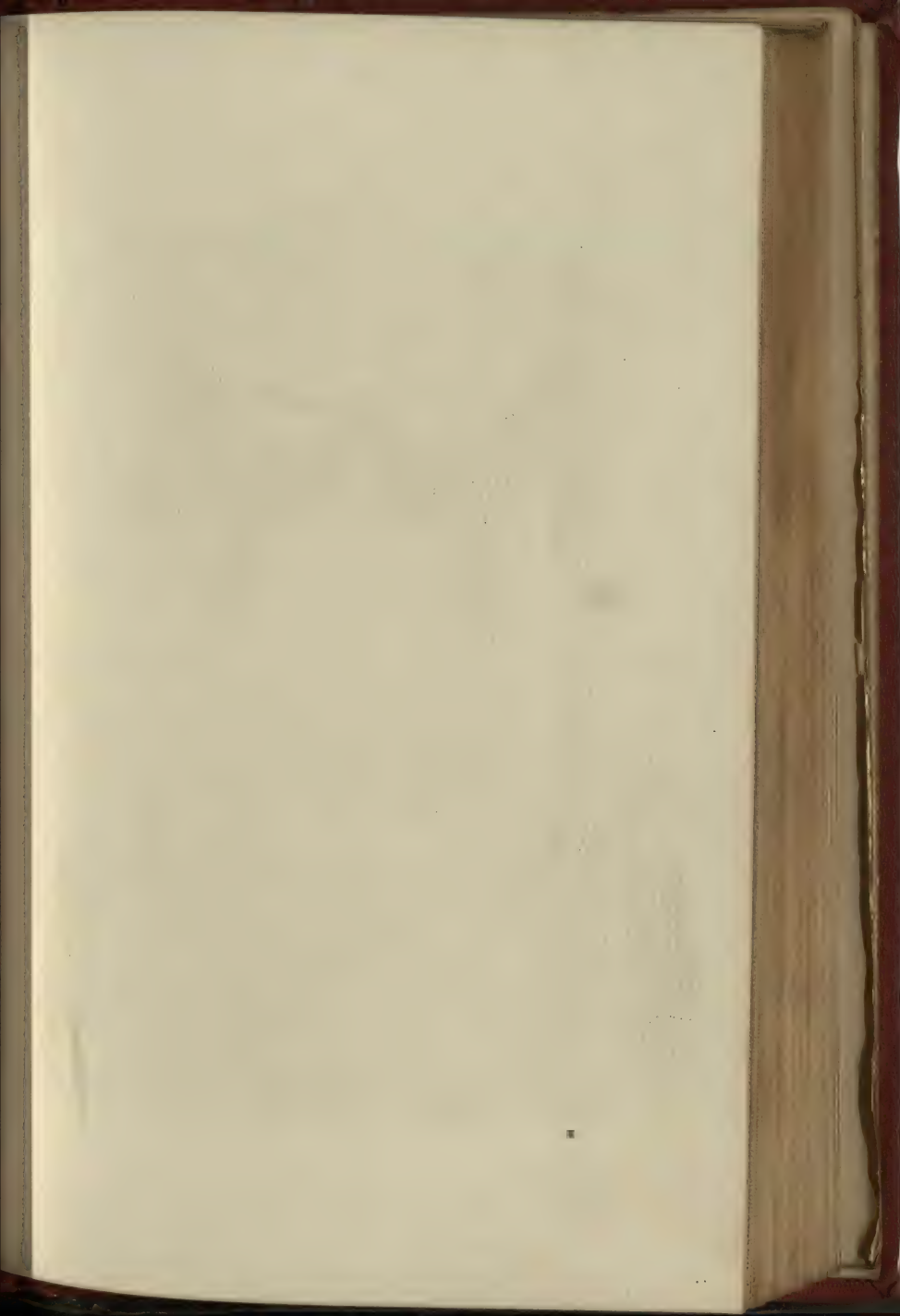




Engraved by G. Greathach, from a Daguerreotype.

A LADY'S MECHANICAL ESCRUTOIRE OF WHITE WOOD
 FOR WRITING IN A SITTING OR STANDING POSTURE
 DESIGNED & MANUFACTURED BY M. L. WETTLI OF BERNE





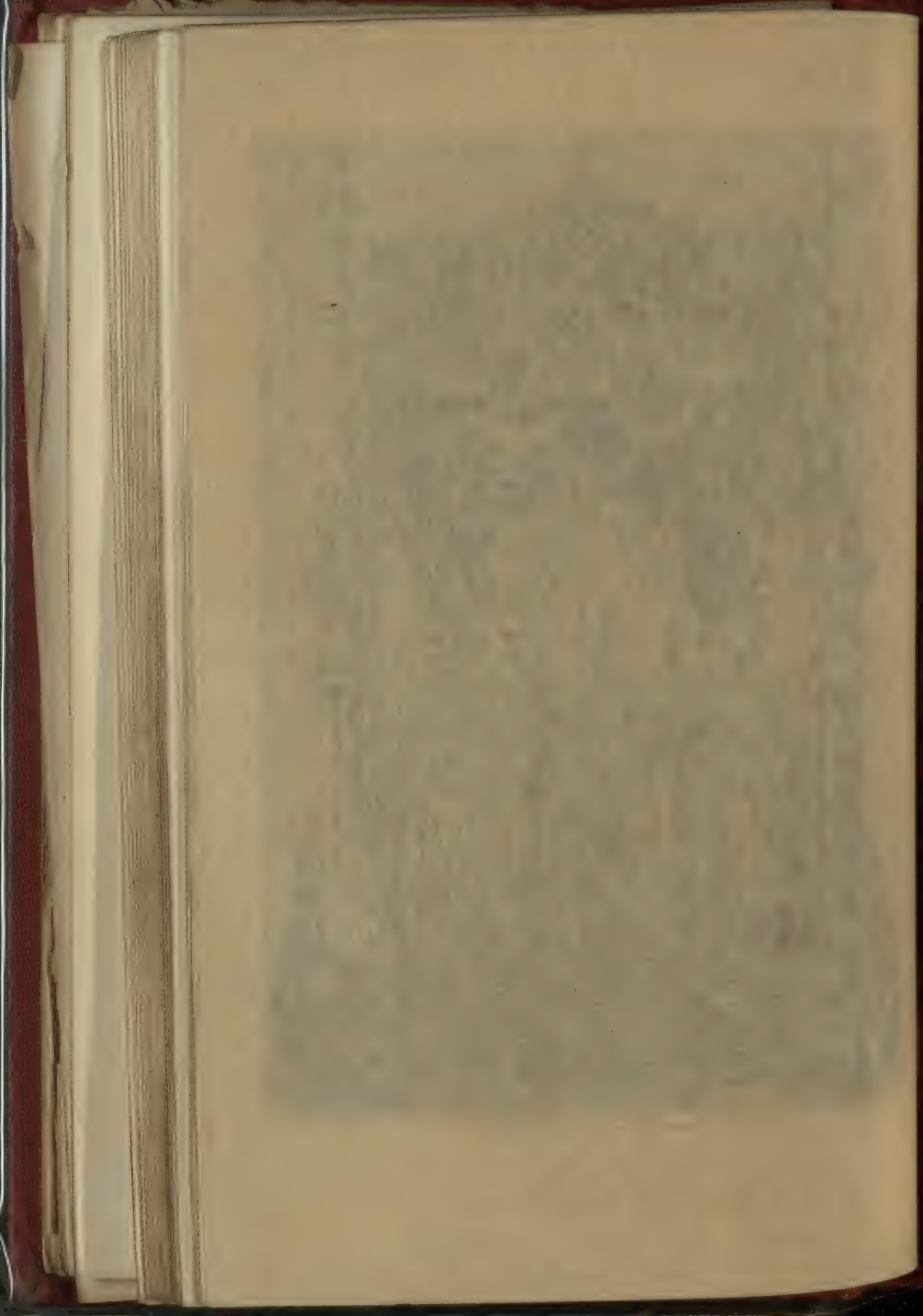


Engraved by G. Schindler, Berlin & Co.

THE AUSTRIAN BEDSTEAD.

MANUFACTURED BY C. LEISTLER & SON, VIENNA

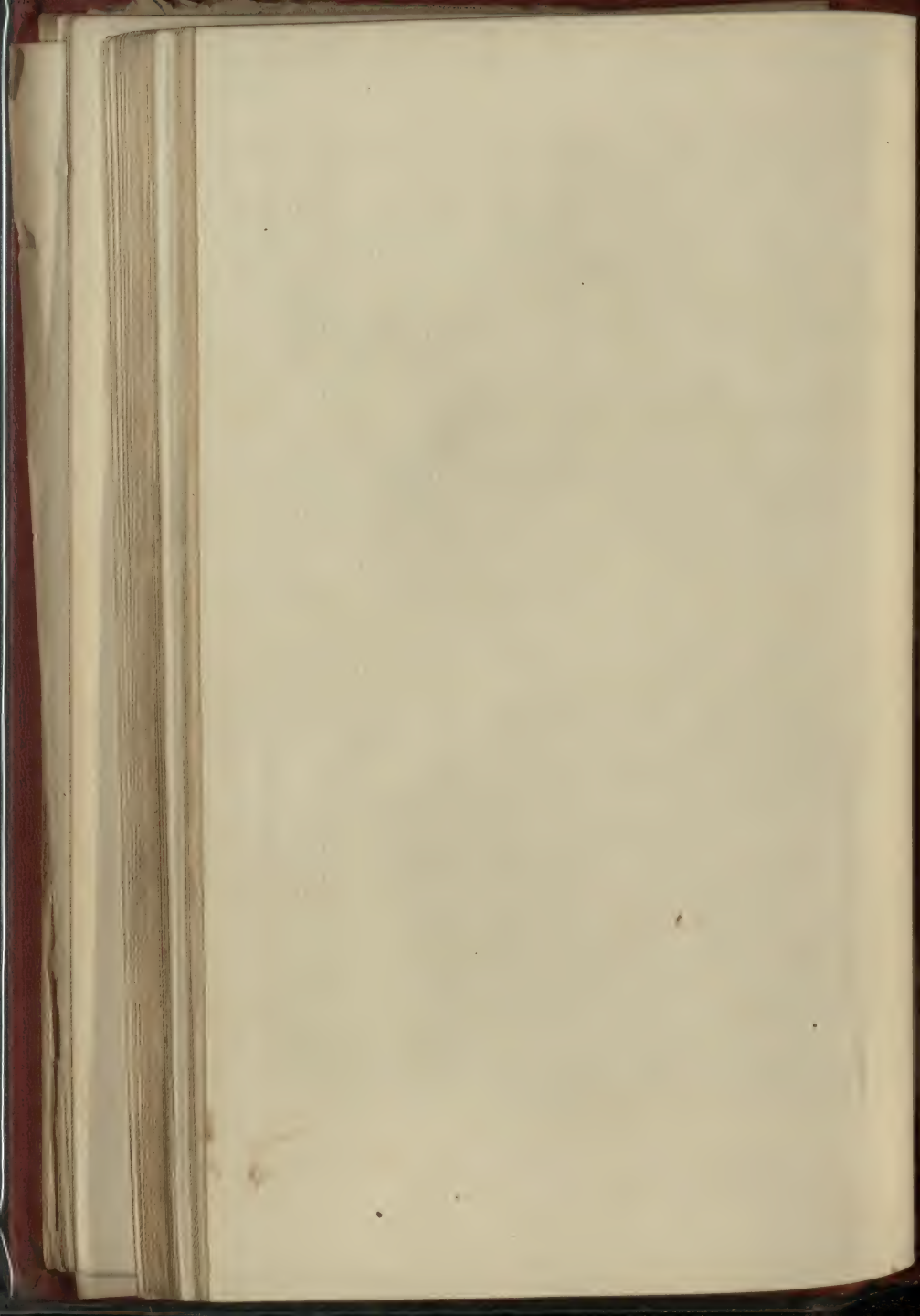
PURCHASED BY HER MAJESTY





WALNUT TREE BEDSTEAD.

MANUFACTURED BY MESSRS ROGERS & DEARS, HYDE PARK CORNER.



To M. J. BELL, for his statue of the Eagle-Slayer, cast in bronze, and also in iron. This figure represented a powerful man in very strong action, at the moment after shooting an arrow into the air. The violence of the exertion had brought the muscles into full play. The artist admirably succeeded in expressing the momentary and transient character of the action, and the form was modelled with a knowledge and truth of detail which are seldom found in the English School. In his statue of Falkland, executed for the new Houses of Parliament, was displayed a mastery rarely attained in portraiture; the conception was spirited, the treatment throughout strictly plastic, the figure was remarkable for its noble presence, and its attitude of calm and dignified repose.

To Signor GIO MARIO BENZONI, of Rome, for two groups of a Little Girl with a Dog. In one of these the child was represented drawing a thorn out of the dog's foot; in the other the dog, after having killed a snake which was threatening an attack, sought to awaken the child thus rescued. The motive of these works was attractive, and they were carefully executed in marble, but they were by no means of sufficient importance to be considered adequate representations of the modern school of sculpture in such a city as Rome. It is to be regretted that the most distinguished artists of that city, and especially Tenerani, the greatest living sculptor of Italy, sent no specimens of their works to the Exhibition.

To M. AUGUSTE DEBAY, of Paris, for his group in marble representing Eve, with Cain and Abel asleep in her arms, and designated as "Le Premier Berceau." In the form and attitude of Eve there was great beauty, truth, and refinement of feeling, and the countenance admirably expressed the tenderness of a mother. The treatment of the figure, however, was rather too picturesque in character, and the general motive somewhat strained and violent; the forms of the children were not happily composed, and there was a want of style in the hair of Eve, which was gathered together behind in a somewhat clumsy mass.

TO Professor F. DRAKE, of Berlin, for a reduced cast of part of the marble pedestal to the monument of Frederic William III. of Prussia. The statue which this pedestal supports was erected by the inhabitants of Berlin, as a token of their gratitude for the embellishments which this monarch has bestowed on their Thiergarten (Zoological Gardens.) The work exhibited was in plaster, half the size of the original pedestal. In the reliefs with which it was ornamented, the sculptor selected subjects which contained allusions to the local destination of his work. Thus he represented a number of figures, of every age and sex, enjoying themselves in the open air. We observed groups of children looking into a bird's nest or feeding the swans, young maidens weaving garlands, old people leading children to the scene of the sports, or contemplating their youthful gambols with an air of calm enjoyment. There was much beautiful feeling in the treatment of this subject: the heads were full of expression, the movement of the figures very spirited, and the different groups were skilfully connected. The composition was executed in a very good style of alto-relievo, the details finished with the greatest care. On the whole, this work was deserving of the very great and general admiration that was bestowed upon it. It may, however, be noted as a defect, that the artist did not throughout preserve the relative proportions of the figures.

TO M. A. ETEX, of Paris, for his various works of sculpture in plaster and marble. Of the three groups exhibited by this artist, the most agreeable is that in marble of Hero and Leander, standing mournfully beside each other. In the group of Cain and his Family, the characteristics of a base, abandoned nature, were admirably expressed in the countenance and coarse clumsy limbs of Cain, which were very carefully studied from the life. The allegorical group of the City of Paris imploring Heaven to take away the Plague of the Cholera, was a less agreeable work, on account of the manner in which the subject was treated. The city was represented as a seated female figure, with an old

man and a youth expiring of the pestilence, one on each side. In these figures the moment of death was expressed with wonderful truth. This work was a specimen of that class of art which, seeking to act on the feelings through the representation of mere physical suffering, may be called the revolting; a style which appears to be little cultivated or admired except in France, notwithstanding her supreme excellence in point of refinement and taste, which M. Blanqui, in his letters on the Exhibition, so confidently asserts.

To Mr. J. H. FOLEY, of London, for his statue of a Youth at a Stream; also for his group representing Ino and Bacchus. The former of these works we have already sufficiently noticed, as well as the statue of Hampden by the same artist. The group of Ino and the infant Bacchus exhibited much grace and refinement of form, but altogether was not so generally attractive as the Youth at the Stream.

To Signor M. J. FRACCAROLI, of Verona, for his two statues in marble, representing Achilles wounded in the heel, and David in the act of slinging the stone at Goliath. The design of this last-mentioned figure was very spirited, but a little strained; the features had a noble expression. The youthful character of the head, however, did not altogether accord with the rest of the body, in which the muscles were too strongly marked.

To M. C. A. FRAIKIN, of Schærbeck, near Brussels, for a plaster group of Psyche carrying off Cupid. The motion of this figure was spirited, and the forms were expressed with great tenderness, and from several points of view the group was very attractive. The movement of the head of Psyche, however, struck us as rather affected, and in the style of Canova.

To Signor A. GALLI, of Milan, for his statue of Susanna. The forms in this figure were youthful and pleasing, the attitude agreeable, and the execution extremely careful; but without the introduction of the two Elders, the subject would be difficult to recognise.

To M. G. GEEFS, of Schærbeck, near Brussels, we have

already paid honour due, for his admirable group of the Lion in Love, and we shall therefore direct the attention of our readers to another work by this skilful artist—a bust of his Majesty the King of the Belgians, which was full of spirit, and very carefully executed.

To Mr. J. HOGAN, of London, for his reclining figure in plaster, representing a Drunken Fawn. This personification of the sylvan deity, “ripe with the purple grape,” and reeling from excess, appeared to be making a last effort to save himself from falling. The work indicated careful study, but the attitude was rather violent and ungraceful.

To Mr. JENNINGS, of London, for his marble statue of Cupid. Among the few poems of Sappho that have come down to us is her charming lyric of “The Rose,” wherein Cupid asserts her right to be made the queen of the flowers. This subject has been treated by the late celebrated Thorwaldsen, with his usual felicity, in a basso-relievo, where Cupid is represented bringing the rose to Jupiter and Juno, who are seated side by side, with the attendant eagle and peacock at their feet. Mr. Jennings presented us with an abridgment, as we may term it, of the story, in the person of Cupid alone. His attitude, as he extended the rose in one hand, and pointed exultingly to it with the other, as if claiming admiration of its beauty, showed to great advantage his finely formed limbs: an air of gaiety and enjoyment befitting the brightness of youth, pervaded the whole figure, which seemed to breathe of spring and blossoms. At his side the trunk of a tree, round which the rejected lily twined her delicate tendrils, along with the rose, showed that her modest charms had been cast into the shade by the glowing attractions of her more brilliant sister.

To M. J. A. JERICHAU, of Copenhagen, for a group in plaster, representing a Hunter carrying off the Cub of a Panther. It was for Denmark that the great Thorwaldsen, unquestionably the finest sculptor that has appeared since the time of Phidias and Praxiteles, embodied his spiritual conceptions in such a number of masterpieces of sculpture;

and there are not wanting in Denmark at the present day, distinguished sculptors, who follow in his footsteps with greater or less success. Among these, M. Jerichau takes no inferior position. In this able group of a Hunter and Panther, he has exhibited great spirit and fine conception. The execution also is skilful, and the details well attended to.

To Mr. J. LAWLOR, of London, for his statue in marble of a Nymph Bathing, a work of considerable merit.

To M. A. LESCHESNE, of Paris, for his admirable groups in plaster of Dogs and Children. As we have already noticed the productions of this artist in a former chapter, we shall pass on to Mr. LAWRENCE MACDONALD, of Rome, whose studio is crowded with busts and portraits in marble and plaster, of most of the celebrated personages who have passed a season within the walls of the Eternal City. The Iconic figure by this sculptor, for which he received his prize medal, executed in the manner and costume of classical antiquity, showed that the artist has a just perception of style, and sound knowledge.

To Mr. P. MACDOWELL, of London, for his plaster statue of Eve; also for his statues of Cupid, and of a Girl at Prayer, in marble. The most remarkable work of this sculptor was his Eve, which was modelled with great knowledge, the attitude also was graceful, and the expression of longing curiosity well rendered. His Girl at Prayer was treated with simplicity and depth of feeling, and very carefully executed. His figure of Cupid had also great merit.

To Mr. WILLIAM MARSHALL, of London, for his plaster figure of Sabrina. Sabrina is familiar to us from the beautiful invocation of Milton:—

“Sabrina fair,

Listen where thou art sitting

Under the glassie cool translucent wave,

In twisted braids of lilies knitting

The loose train of thy amber-drooping hair,

Listen for dear honour's sake

Goddess of the silver lake,

Listen and save.”—*Comus*.

The Sabrina of this artist was remarkable for its feminine grace; the head had a fine character of individuality, and there was great beauty in the form, and in the general expression.

Signor RAFFAELLE MONTI, of Milan, and Mr. HIRAM POWERS, of the United States, both of whom received a prize medal, have already had their respective performances sufficiently commented on by us in a former part of this work: we shall therefore pass on to M. J. M. RAMUS, of Paris, who received the same mark of distinction for his marble group of Cephalus and Procris. Cephalus was represented tenderly supporting in his arms the dying Procris. This group was, in its leading lines, very happily composed, and showed in the forms much knowledge of nature; but the modelling was not in a sufficiently large style, and was not sustained throughout.

To Professor ERNST RIETSCHEL, of Dresden, for his plaster group, designated as *La Pietà*, representing Mary kneeling at the dead body of our Saviour; and for his bas-reliefs in marble. This distinguished artist, one of the ablest pupils of Rauch, exhibited three works, the varied character of which showed the versatility of his talents. 1.—A group of the Virgin weeping over the body of our Saviour, cast in plaster, from a model executed for his Majesty the King of Prussia. In the figure of our Saviour, anatomical truth was combined with nobleness of form; the countenance wore a fine dignified character; its mild transfigured expression proclaimed the triumph over the agonies of death. In the Mary, the countenance and the clasped hands revealed the deepest, but most resigned sorrow of the soul. The drapery was fully worthy of the invention shown in the group. 2.—Angel of Christ, a very noble relief in marble. The Angel was represented in the form of a graceful youth, floating in the air, with the infant Saviour in his arms; two infant angels attended his course. This group had a peculiar charm, from the beauty of the heads and figures, the grace of the action, the suddenness of the movement impressed on the flying

drapery, and the masterly, yet tender handling of the marble. 3.—Love riding on a Panther, whose course he tries to arrest, eagerly grasping his neck with both his hands. This beautiful conception was quite in the spirit of ancient art, and was expressed with great vigour of hand.

To Mr. T. SHARP, of London, for his marble figure, representing a Boy frightened by a Lizard. This was a remarkable work—quite unlike in choice and treatment of subject any we have as yet noticed. The artist did not hesitate to express that dryness and meagreness of form which characterizes the particular stage of boyhood selected for representation; but these details were executed with the utmost accuracy, and with an admirable feeling for nature. The eye of the ordinary observer, habitually accustomed to the specious effect of mere smoothness of surface, may, in some degree, be repelled by this truthfulness of representation; but, like all other truth, it will not the less be ultimately appreciated, and we may regard this figure as in itself a proof how great an effort the English school of sculpture is making in the right direction.

To M. E. SIMONIS, of Brussels, for his equestrian statue of Godfrey of Bouillon, and other works. A colossal figure of Godfrey of Bouillon on horseback, raising the banner with which he led the crusaders to the Holy Land. Cast in plaster from the original in bronze, which is placed in the Place Royale, at Brussels. In this work the expression of the head is full of life and animation, the action very emphatic, the execution very careful. To compensate for the optical diminution which causes statues placed in the open air to appear meagre and deficient in mass, the artist in this group exaggerated the forms both of the warrior and the horse. This departure from nature was perhaps carried too far. In his group representing Truth trampling on Falsehood, the same artist showed power in the representation of delicate female forms, and the work was carefully executed. Two figures of boys, one of whom

is crying over his broken drum, prove that M. Simonis has been successful in that class of subjects called "genre," and which are altogether treated in a realistic manner.

To Signor G. STRAZZA, of Milan, for his reclining figure in marble, representing Ishmael. We have already noticed this striking and admirable performance with due praise. Perhaps the truthfulness with which the dying youth is represented, renders the subject too painful a one for general approbation. In the treatment of this subject by painters, an angel bringing help to Ishmael is always introduced, and from the absence of this figure, the impression produced by the work of Signor Strazzi is unrelieved by any mitigating circumstance.

To Mr. E. THRUPP, of London, for his statue of Arethusa, a recumbent figure, gracefully enough designed, but rather deficient in life and individuality. A Boy catching a Butterfly, was a very carefully executed and attractive work.

To M. J. TUERLINCKX, of Malines, for a figure in marble, representing the celebrated Giotto when a boy, looking at his first attempt at drawing, with an expression of joyful surprise. The conception of this work was very spirited, and it was carefully executed.

A prize medal was also conferred upon the representatives of the late Mr. L. WATSON, of London, for his admirable portrait statue of the celebrated Flaxman, a noble performance, which we have already sufficiently described. As also for the colossal figures of Lord Eldon and Lord Stowell, which showed how greatly this artist excelled in Iconic sculpture.

We next turn our attention to M. ALBERT WOLFF, a native of Berlin, who also received a prize medal for his group of a Young Maiden holding a Lamb in her arms. This figure was entitled by the sculptor, Innocence, and its purity and simplicity of character fully expressed such an idea. The drapery was throughout treated in a plastic style, and the execution was exceedingly careful. M. Wolff, though a Prussian by birth, has long fixed his residence

in the Eternal City, and his studio there, in the Via Quattro Fontane, is altogether, perhaps, one of the most interesting in that grand emporium of the Fine Arts; not only from the surpassing elegance, but also from the extraordinary variety of its contents. Let us attempt a brief description. Believing that mythology is the basis of sculpture, and being an enthusiastic admirer of classic story, M. Wolff devotes much of his talent to representations from Greek and Latin fable; as we see in his "Prometheus," in the act of coming stealthily away with the divine fire, which he has stolen and secreted in a reed; "Thetis, seated on a Dolphin," conveying arms to Achilles, the tender anxiety of the mother being happily conjoined with the dignity of the goddess; "Diana, resting from the Chase," in which we see, by her trophies of game, she has been successful; "Cupid clad in the spoils of Hercules"—one of the many delightful ideas which have come down to us from the gems of the ancients; another Cupid sleeping upon his quiver, his bow at his side, and at his feet a dog that seems intent on preventing his repose from being broken in upon; and pity that it should be, for never was repose, profound, innocent, and sweet, more charmingly expressed. Then there is the ever-lovely and poetical character, Psyche, with the vase which tempts her to her second act of disobedience; and another personification of her, extremely beautiful, seated on the ground, her lamp at her side, her dagger in her hand, her lovely features betraying, though without disturbing their symmetry, the vague uneasiness and jealous doubts infused into her bosom by the artful suggestions of her sisters. This production now graces the collection of Lord Yarborough, whose taste is fully commensurate with his liberality in the fine arts.

In smaller compositions M. Wolff is not less happy. "The Seasons as Children," strike us as the very prettiest miniature representations of them that we have ever seen. Spring, a lovely little girl, is crowned with flowers, and scattering them around her. Summer has his sickle in

one hand, some ears of wheat in the other, whilst on the ground at his feet a rustic flask, formed out of a gourd, reminds us of the sultry skies under which he is performing his harvest task. Autumn displays her grapes, her vase, and drinking cup. But Winter is still more characteristic. The sly little fellow has wrapped himself up in the skin of a wolf, and so snug and comfortable does he look in it, that we can scarcely feel any concern for his having to face the biting blast, which we almost fancy we hear whistling round his well-defended ears. How well would these pretty figures grace the corners of the entrance-hall in some of those abodes of which so many are to be found in England; particularly in the vicinity of its capital, where every elegance and refinement are frequently introduced on a lesser scale, which more than makes up by the harmony and completeness of its arrangements for all that it may fall short of in magnitude. To us, moreover, they appear to afford happy vehicles for the portraiture of children under such playful disguises, for those parents who may be able to perpetuate them in marble.

"Jephthah and his Daughter" belongs to a different style of art, in which M. Wolff has shown himself not less happy. The dignified despair of the father, the touching submission of the daughter, as she clings to him, with an obedient love in which we see, we feel, there is not even the shadow of reproach, are finely expressed. The devoted girl is very graceful, in her bending figure, and drooping head, whilst her father exhibits a regal majesty shrouded under the bitterness of his grief. But of all the productions from M. Wolff's chisel, we see none more to our individual taste than his "Nereid," which he has, indeed, been called upon to repeat more than once, so much has it been admired. She is leaning on her left hand, and raises her right, armed with a spear, in the act of transfixing one of the finny tribe, which her animated countenance shows she beholds in the clear stream, on which we fancy her looks are eagerly bent. The grace, the vivacity, the loveliness of this figure, are incomparable.

How admirably would it adorn some of our suburban villas on the banks of the Thames, or some noble sheet of water in the grounds of our patrician seats, not to be rivalled in the world for their combination of exterior splendours and internal comforts.

M. Wolff has also enjoyed the patronage of Her Majesty the Queen, having executed the bust of the Princess Royal during his late visit to this country. He has also had the honour of sculpturing Prince Albert in the costume of a Greek warrior, which well becomes the figure of His Royal Highness, of whom the likeness, individually considered, is true in point of fidelity, and pleasing in that of expression.

We take our leave of M. Wolff's studio, asking pardon of our readers for the short digression our visit to it has occasioned, by observing that, besides the highest degree of excellence in the range of classic subjects, he is peculiarly happy in the representation of that individuality of character and expression so necessary for the formation of a good bust; and an opportunity of appreciating his merit, in this most desirable walk of art, is agreeably afforded, to those who may have the opportunity, by the contemplation of many resemblances of eminent and well-known personages who owe the perpetuation of their features to his talent.

To sculptors in bronze the following prize medals were awarded; with a brief account of which we shall conclude our present chapter, reserving for future notice such works as were distinguished by "honorary mention" on the part of the Jury.

To M. JEAN DEBAY, of Paris, for his group of a young Hunter, rushing forward to despatch a Stag, pulled down by a Hound. The Hunter was naked, and the whole subject was conceived in the spirit of ancient art. This group, from the natural manner of the action, formed a very pleasing composition. The hunter and the animals were modelled with great knowledge, and a good style was shewn in the execution.

To M. FRATIN, of Paris. This artist, the most celebrated sculptor of animals in France at the present day, contributed to the Exhibition Two Eagles with a wild Goat, which they have slain; a greyhound, another hound, life size, and several animals on a smaller scale, all in bronze. These works were fully worthy of the artist's reputation. The general conception was most spirited, the details of nature were most faithfully rendered; and the treatment throughout, particularly of the plumage and the skins, was most careful, and in very good style.

To M. E. L. LEQUESNE, of Paris, for a Satyr, cast in bronze, represented after the manner of the ancients, dancing on a wine-skin, in a state of joyous drunkenness. In this figure, the character of the head, and of the strong, hard muscles, quite corresponded with the general satyr type created by the imagination of the ancient artist. The motion was easy and natural, and the carefulness of the execution was maintained throughout.

CHAPTER XIV.

HOROLOGICAL INSTRUMENTS.

DESCRIPTION OF TECHNICAL TERMS — BRYSON — ROSKELL — KRALIK — THE ALPHA CLOCK — BLAYLOCK — DENT — GOURDIN — BAILLY COMPTE — WAGNER — LOWRY — LEVER AND CHRONOMETER WATCHES, ETC. ETC.

"We take no note of Time but from its loss,
To give it then a tongue was wise in man."

SUCH is the observation of the philosophic author of the *Night Thoughts*; and often, indeed, has the world had occasion to be thankful that the skill and ingenuity of man have endued with a warning voice the otherwise silent progress of Time, reminding us of its continuous and rapid flight, and awakening us to the necessity of employing to

advantage that portion of it which is yet before us, and which, once suffered to pass unimproved, can never be recalled. "Tempus fugit nosque fugimus in illo," was a wise remark of the poet, and however trite it may appear, it is one which we cannot too frequently bear in mind. These and similar reflections irresistibly presented themselves to our imagination as we contemplated the profusion of ingenious machinery to mark the revolving hours, with all their minute divisions and subdivisions, that was exhibited to the curious public in the Crystal Palace.

In all ages, in all countries, however barbarous or uncivilised, some division of time, some mode of marking its progress, has been attempted; and science, in lending her aid to the more perfect accomplishment of this endeavour, has also herself derived benefit from the success she has obtained—the determination of the longitude, and the safety of our hardy seamen, in their long and perilous wayfare, greatly depend on the accuracy with which our horological instruments are constructed.

As our present article is not designed solely for the information of those who are already well acquainted with the leading features of the construction of horological instruments, we shall probably render the subsequent details more generally intelligible to our readers, if we briefly explain some of the technical terms which must of necessity constantly recur in our descriptions, such as *escapement*, *compensation*, *remontoire*, &c.

By the term *escapement* is meant that portion of the mechanism of a clock or watch, by which the teeth of the last revolving wheel of the train of wheels, commonly called the "sape-wheel," communicate an alternating motion to the balance or pendulum, as the case may be—and by which also the teeth are successively permitted to escape, after giving an impulse to the balance or pendulum.

An escapement is called a *detached escapement* when the piece or part that permits the escape of the teeth of the scape-wheel is not attached to the balance or pendulum, but is moved or acted upon by either of these, at some

particular point of their swing or *oscillation*. The ordinary clock escapements are the dead beat, and the common or recoil escapements, neither of which is detached. The effect of the recoil escapement will be most easily recognised, in any common clock that has a seconds hand, by a backward jerking motion of that hand; and this is also visible in the minute hand, previous to each advance. It is owing to the form of the pallets and teeth of the scape-wheel, which is necessary for rough work. In the dead beat escapement no such recoil is observed, but the hand remains stationary between its successive forward movements. This, therefore, is a more delicate escapement, and much more easily deranged than the recoil. Another, which is frequently met with in the clocks exhibited, is known as the "pin escapement."

The principal kinds of timepieces which have a balance, and not a pendulum, are watches, carriage timepieces, marine and pocket chronometers. All these are required to keep time under sudden and various changes of position—disturbing causes which are incompatible with the free motion of a pendulum.

The more usual escapements applied to this class of timepieces are—(we arrange them in the order of merit)—the chronometer, the duplex, the cylinder, the lever, and the verge, or common vertical escapement; of these the chronometer and the lever are the only detached ones.

A very neatly-finished series of models of watch escapements was exhibited by Bryson, of Edinburgh, and a series of skeleton timepieces, exhibiting the various escapements, by Roskell, of Liverpool. There was another well-executed series of models by S. Kralik, of Pesth, in the Austrian department. This series comprised the chronometer escapement; the duplex—in this the points of the teeth of a second and smaller scape-wheel perform the office of the usual pins; the lever—in this the teeth are terminated by oblique surfaces, instead of being pointed as usual, an arrangement which probably wears better, but the friction must be greater; the cylinder, and a modification of this

—in which a curved tooth on the balance axis performs the office of the cylinder.

There was also a model of the pin escapement applied to a balance, and of two unusual vertical escapements. In one, the scape-wheel is like that of a common recoil escapement. There are two circular plates on the balance axis, with a notch in each. A tooth of the scape-wheel, in passing the notch in the first plate, gave an impulse in one direction to the balance, and fell on the second; on the recoil of the balance the tooth is released from the notch in the second plate, and in passing gives an impulse to the balance in a direction opposite to the former. In the other there are two scape-wheels, at a small distance from each other, on the same axis, the teeth of which are placed intermediately to each other. There is a cross bar on the balance axis which releases a tooth of the two scape-wheels alternately, and in passing receives an impulse from each.

By the term *compensation* is meant the action of some mechanism by means of which the balance or pendulum of a timepiece is made to oscillate in very nearly the same time, notwithstanding considerable changes of temperature. As the physical causes which influence the time of oscillation of a balance are in part essentially different from those that affect the pendulum, we shall leave the question of compensation in balances until, in a subsequent article, we give an account of the construction of the various marine and pocket chronometers which were presented to our notice in the Exhibition; and for the present we shall confine our attention to the compensation of pendulums. The time of oscillation of a pendulum depends, not on its entire length, but on the distance between the point of suspension and a point called the centre of oscillation—the point at which, if the whole weight of the pendulum were concentrated, it would still oscillate in exactly the same time. The mathematical consideration of this point need not here be entertained, as it may be found in any standard work on dynamics; we need only

further remark, that the *greater* the distance between these points, the centres of suspension and oscillation, the *slower* will be the oscillation of the pendulum, and *vice versa*.

If a pendulum be not compensated, the least variable material of which it can be made is a rod of some tolerably light and porous wood, as deal or Honduras mahogany, the length of which is very slightly affected by changes of temperature and moisture; but the small changes produced by these agents cannot very readily be distinguished from each other. If, however, as is more frequently the case, the rod of a pendulum is of metal (usually iron or steel), it is evident that the weight at the end of the pendulum will be carried further from the centre of suspension by expansion of the rod when the temperature rises, and again brought nearer when the temperature falls, as all metals expand by heat and contract by cold, though in very different degrees.

If, then, to the lower end of the pendulum is attached a certain portion of some metal that expands by heat much more rapidly than steel, the centre of gravity of the added or *compensating* metal may be carried upwards by its own expansion, sufficiently to counteract the descent of the centre of gravity of the remaining portion of the pendulum by the expansion of the steel rod; and thus an invariable distance may be maintained between the centres of suspension and oscillation under all ordinary variations of temperature.

One of the oldest forms of compensation consists of a series of brass and steel rods placed alternately, and the adjacent rods connected alternately at the top and bottom, the weight being attached to the outer pair of steel rods. In this arrangement, to which, on account of its shape, the name of "gridiron pendulum" was given, the excess of expansion of the brass rods is sufficient to compensate the expansion of the whole length of the pendulum.

In clocks of the best description, such as astronomical clocks and "regulators," the compensation is usually effected by means of a glass or iron cistern of mercury,

attached to the bottom of a steel rod, which supplies the place of the ordinary weight. Owing to the very large expansion of mercury, which is much greater than that of any other metal, a column of about eight or nine inches high is sufficient to compensate by its expansion for the whole length of an ordinary seconds pendulum.

In the turret clock exhibited by Dent, the compensation is effected by a hollow cylinder of zinc, which surrounds the rod of the pendulum; and in several of the French clocks, by a brass rod placed between two steel ones. The brass rod, by its expansion, raises the steel ones and the weight, or the weight only, through a space sufficient to compensate for the expansion of the steel rods; this is effected by means of two levers, which are placed either at the top or bottom of the rod, but more frequently the latter.

Some other special modes of compensation must be mentioned hereafter, in speaking of the clocks to which they are applied.

But there is yet another important source of error in the rates of clocks, more particularly affecting those of large clocks. To obviate this, a mechanical arrangement has been devised, which is known by the term *remontoire*. In clocks of large size, the irregular action of the coarse teeth of large wheels, and the ever-varying weight of the portion of the rope by which the clock-weight is suspended, that is brought into action, as it is uncoiled from the barrel, are perpetual sources of irregularity in the impulse given by the scape-wheel to the pendulum. In the best description of turret-clocks these sources of error are now obviated by disconnecting the scape-wheel from the train, which, when released at short intervals (usually of half a minute) raises a small weight or lever, which in its descent communicates to the pendulum, through the medium of the scape-wheel, either uniform impulses, or a series of impulses varying very slightly, but recurring uniformly at each descent of the weight or lever. This, from its being periodically raised up, has been termed *remontoire*. The various me-

chanical arrangements applied to the clocks exhibited will be more appropriately described when we speak of them individually.

Having thus briefly described the leading features that characterize the construction of first-class clocks, we will now proceed to notice the large or turret clocks that were presented to us in the Exhibition. The English department contained, it must be confessed, but a small amount of variety. On the right of the great organ was a large turret clock, called the Alpha Clock, by Mr. R. Roberts, of Manchester, which unquestionably presents a stronger evidence of original genius than any other clock in the Exhibition; there is, in fact, nothing about it at all that is common-place. The frame is of a quadrangular pyramidal form, which is admirably adapted for solidity; the large wheels being placed near the base of the pyramid, and the smaller parts above them. The teeth of the wheels and pinions are all cast, except those of the scape-wheel; this must, of course, influence considerably the cheapness of construction. The escapement is detached, and of a novel construction; there is a detent with two arms, on an axis which has also a pinion in gear with a wheel on the same axis with the scape-wheel, so that the detent axis makes half a turn to release each tooth of the scape-wheel. The detent is held by a tooth at the end of an arm that hangs from the point of suspension of the pendulum; this arm is moved by a pin projecting from the pendulum near the end of its oscillation, and releases the detent, when the pendulum receives an impulse from an oblique surface of a tooth of the scape-wheel. The scape-wheel is impelled by a remontoire of perfectly uniform action; this consists of a weight attached to an endless chain, which is wound up every half-minute, on the release of the train, by the arm of another two-armed detent. The clock weights themselves also form part of an endless chain; but this seems to be an unnecessary refinement. The construction of the hammer by which the bell is struck is also quite new. The head of

the hammer is a ball of gutta percha, by which the tone of the bell is at once brought out, unimpeded by the secondary vibrations that result from the blow of an ordinary metallic hammer. Again, the fly is superseded, and the hammer is made to perform the office of a fly. It revolves at right angles to an axis, and, in making one revolution, acquires sufficient centrifugal force to throw the head outwards, and enable it to reach the bell; after striking, the hammer remains quiescent.

Near the end of the south-west gallery, was exhibited an accessory to turret clocks that deserves notice. This was a simple and ingenious mode of self-regulating the supply of gas to illuminated dials, by J. Blaylock, the length of time being daily increased or decreased by the mechanism, as required. The action requires to be reversed on the longest and shortest days.

In the western avenue was a turret clock by Mr. Dent. In this the train is released by a detent every half-minute, and winds up a spring contained in a box, through which the scape-wheel axis passes. The end of the spring is attached to the axis, and consequently the spring acts as a remontoire. As the object of a remontoire is to obtain uniformity of impulse on the pendulum, this, of all the contrivances exhibited, appears the least calculated to attain the desired object, owing to the variation in the strength of the spring from change of temperature; especially when we remember that turret clocks are, from their situation, exposed to great vicissitudes of temperature.

In the French department, M. Gourdin exhibited a beautifully finished piece of workmanship, but greatly wanting in solidity. Two ornamented open-work girders, on which the whole weight of the clock rests, were evidently bent by the weight that they were unduly called on to sustain. The remontoire consists of a weight hanging by a thread from an arc at the end of a lever; this renders the action of the weight constant, but the action is not entirely constant, as the short arm of the lever carries an

axis on which are two wheels—one in gear with the train, the other with the scape-wheel pinion; the escapement is a dead beat, the teeth of the scape-wheel being obliquely truncated.

M. Bailly Compte showed a well-finished clock, with a pin escapement. The remontoire gear is one of which there were several examples amongst the French clocks. The last axis in the train, and the scape-wheel axis, are in a line with each other, and have two bevelled wheels of equal size at their adjacent ends, which are separated by an interval equal to the diameter of the wheels. The remontoire, which consists of a lever with a weight near the end of it, has a bevelled wheel attached to it at right angles to, and in gear with, the two former bevelled wheels. Thus the train, which is periodically released, raises the weight that in its descent impels the scape-wheel. This appears to us, on the whole, the best arrangement of the remontoire. Some little irregularity would of course arise from the variation of the length of the lever by temperature, but we doubt whether this would be sensible in the rate of the clock, and if sensible, it might be very easily compensated.

The series of clocks by M. Wagner of Paris, were entitled collectively to more study than the works of any other exhibitor. No. 3, a striking clock, with pin escapement. No. 7, exhibited a novel detached escapement; two jewelled pallets at the ends of short-balanced levers are attached to the pendulum, one above and another below the circumference of the scape-wheel, the axis of which passes through a space cut out of the pendulum. We should suppose the action to be very light, and to have little friction. The next article was a clock with pin escapement, and pallets attached to the pendulum. The remontoire is a weighted lever, which when down, releases a fly, that prevents the weight being raised by a jerk. This, no doubt, would interfere with the sudden jumps of the minute hand, as in Dent's clock; but this advantage we think may very well be sacrificed to the

steadiness and uniformity of the movement. An endless screw on the axis of the fly, and a pinion with oblique leaves, are both in gear with a wheel having oblique teeth on the barrel axis. This clock had few wheels, and its construction appeared very simple. There was also deserving of notice a clock with pin escapement and bevelled wheel remontoire, kept wound up by the continuous motion of the train regulated by a fly, to which a cap, suspended to the short arm of the remontoire lever, acts as a governor. This is a very ingenious contrivance, by which the continuous motion of the train is rendered isochronous with the alternate motion of the pendulum, and may therefore be used to carry an equatorial movement, or a heliostat, or for any other purpose for which a perfectly uniform continuous motion is required.

A highly finished clock, with detached pin escapement, compensated pendulum, and bevelled wheel remontoire, also deserved notice. The impulse here was given to the pendulum by a detached bar, the ends of which were alternately raised by two arms fixed on the axis which carried the pallets. Any sudden motion of the remontoire is prevented by a fly. The pendulum is compensated by the brass bar between two of steel, and levers as previously described. There was lastly a clock with a pin escapement—the remontoire and the pendulum the same as the preceding. The pallets were attached to the pendulum, but the friction of the pins on the horizontal surfaces of the pallets was very ingeniously prevented by their being received on pieces projecting from two arms, moving on the same centre as the pendulum, and on which they rested, until they were delivered on to the inclined surfaces of the pallets. This appears to be a great improvement on the ordinary pin escapement, and well worthy the attention of our clock-makers.

Among the watches exhibited, were several novel inventions, displaying considerable ingenuity, and very perfect workmanship: among them was a lever watch by Mr. Samuel Lowry, of Spencer-street, Clerkenwell, which we

think deserves especial notice; it was arranged to show dead and complete seconds on the one train only. This watch is so constructed that the seconds hand is made to drop, without recoil, sixty times in the minute, or once in every second of time, thus the seconds are as accurately shown as by an astronomical clock or regulator. The train, or vibration of the balance, is not altered in any way from those of ordinary watch movements, and the price is very little additional to that of an ordinary watch, from one train only being requisite. This principle of the seconds is also applicable to marine chronometers, &c. The importance of this invention in cases where accurate notation of minute portions of time is required, is at once obvious.

CHAPTER XV.

VARIETIES.

ROYAL VISITS — PETTY LARCENIES — GEORGE CRUIKSHANK'S GREAT ETCHING — VISIT OF THE SUSSEX PEASANTRY — ANECDOTE OF THE DUKE OF WELLINGTON — FUTURE DESTINY OF THE CRYSTAL PALACE — THE ATHENÆUM — LORD CAMPBELL — EARLY MORNING VISIT OF M. HECTOR BERLIOZ — THE SOLITARY CHINESE, AND THE SOLITARY SPARROW.

DURING the "high and palmy state" of the Great Exhibition, while the World's Wonder was new, and its praises in everybody's mouth, all the leading and popular journals of the day delighted to expatiate on the inexhaustible subject, and the events of each passing hour in connection with it, were the constant theme of their eloquent admiration. No topic, however, was more eagerly brought forward, and none was more agreeable to the public consideration, than the frequent visits that were paid by Royalty to the Crystal Palace. At one time the public

were informed that "Her Majesty arrived for her almost daily visit to the Crystal Palace, at a quarter past nine yesterday morning. The royal party consisted of the Queen, Prince Albert, the King of the Belgians, and the Princess Charlotte, attended by the usual suite. Mr. Wentworth Dilke, Colonel Reid, and Mr. Cole, accompanied the illustrious visitors through the building. The Austrian sculpture-room was first inspected, after which her Majesty and friends proceeded to the collection of English marbles, which were subjected to a lengthened examination; Bell's 'Babes in the Wood,' and Gibson's 'Hunter,' receiving warm commendation. The party then promenaded through the fine arts room, and after a glance at the Mexican figures, went on to the foreign nave, where the beautiful Mosaic, newly placed there by Lord Foley, was eagerly examined and much admired. This picture, which is a very large specimen of the art, representing the ruins of Pæstum, has all the variety of light and shade which one would expect in a finished oil painting, with the brilliancy of colour which is peculiar to the material employed. It was surrounded by crowds of visitors during the day, and much admired. Her Majesty's next visit was to the English glass and china, after which the royal party descended to the nave, where the company were drawn up as on her Majesty's previous visit, in double file, and greeted their Sovereign with loyal respect and courtesy as she passed out of the building. All cheering was suppressed from feelings of respect, but her Majesty's gracious acknowledgments of the loyalty of her reception were universally and deeply appreciated. The number of visitors was not much greater than on the previous day, and consequently there was free circulation throughout the building. The various fountains were in active requisition, and, towards the close of the day, exhibited a peculiarity which would be well worthy of investigation by the commissioners of water supply. Any one mingling at that hour with the crowds by which they are surrounded, could not fail to detect a strong odour of brandy, and seeing

that spirits are so strictly prohibited in the Crystal Palace, there must be some extraordinary quality in the sources of supply to give rise to so curious a delusion. The number of petty thefts in the Crystal Palace seem rather on the increase, and demand increased vigilance on the part of the police. Another amateur collector was detected yesterday pocketing cigars in the Zollverein section. On his apprehension he stated himself to be a gentleman's servant in Bedfordshire, and urged a curious taste in his smoking as his excuse. He was immediately despatched to reason the matter over with the magistrate. Besides watching the thieves, the police have also a good deal of trouble with lost articles. Upwards of a hundred articles have already accumulated at the station, for which no owners can be found, and people are constantly coming in with parasols, bracelets, and other articles (chiefly female property), which they have found in the course of their perambulations. It is noticed that very little is lost or found on Friday or Saturday."

Then again, after the interval of a few days, the grateful intelligence was made known that "Her Majesty, Prince Albert, the King of the Belgians, the royal children, and the usual suite, visited the Crystal Palace yesterday morning, and inspected the goods in the North Germany, Russian, and Zollverein compartments. The royal party were conducted through the sections by Mr. Cole, Mr. Belshaw, and Mr. Edgar Bowering. The weather was oppressively hot in the course of the day, and had a perceptible effect in keeping away the ticket-holders."

Several attempts have been made to pourtray the first great day of the Great Exhibition, when the Queen of England, surrounded by some thirty or forty thousand of her most distinguished subjects, inaugurated perhaps the grandest show that was ever presented for the wondering admiration of a civilised nation. The scene in Hyde-park on that day was full of those effects which a painter delights to find. People of all ages and all nations, habited in the richest and most varied fabrics which the ingenuity

of the world's looms and workshops could supply—youth and age—beauty and dignity—assembled under a lofty roof of glass, in which were piled the masterpieces of the workman's skill. Beauty of form, and richness and variety of colour, were mingled in gorgeous profusion, whilst rank, wealth, talent, and dignity thronged a scene in which all were alike charmed to take part. But though these mingled and varied points and excellencies, when assembled, might gladden the eye of an artist, to realize them on canvass, or on paper, was no easy task. The very size of the place and the spreading of its interest over a multitude of actors, presented a source of difficulty to those who desired to delineate it. The group on the royal dais did not include the sentiment and action of the great scene. The story could not be told by a few figures. It was necessary to include the great army of spectators, before a satisfactory idea could be given of the opening of the Crystal Palace, and hence the danger of losing, in a fritter of detail, the sentiment and real grandeur of the occasion. We shall, doubtless, hereafter have many pictures on so attractive a subject more or less successful; but whilst they are in embryo, George Cruikshank has prepared and given us in his views of the affair, "taken on the spot," as he describes it, etched and printed upon a handsome sheet, at a moderate price. This veteran artist's version of the thing is just what might have been anticipated. He gives us the multitude of figures, each made out with curious nicety, and many of them bearing traces of the humour for which he has so long been celebrated, the whole, meanwhile, presenting no semblance of caricature, but, on the contrary, displaying a large amount of the genuine character of the scene. The raised dais for the Queen, her husband, and her two eldest children, the crystal fountain, the acres of human heads and shoulders that thronged the nave, the old elms overhead budding in an early and unexpected summer, the strange tropical plants beneath them, the galleries radiant with colour, and thronged like the ground-floor of the building, with a very host of wait-

ing, wondering, and admiring spectators, are all seen in Cruikshank's etching. Statues, pictures, and draperies, are cleverly managed to make up a picture, without injury to the vraisemblance of the whole; and, indeed, it may be said, that up to this time no representation has been offered to the public at once so artistic and so truthful as this print of the opening of the Great Exhibition of 1851. Those who saw, and those who regret they did not see it, will alike be glad to possess so satisfactory a representation of so remarkable a scene.

Inclemency of weather was no obstacle to the regularity or frequency of these royal visits, and the public likewise were not behindhand in due attendance and respectful demeanour. "Yesterday," says our journalist, "there was a full average attendance at the Crystal Palace, although the weather during the greater part of the day was pertinaciously wet. The first visitors, as usual, were her Majesty and friends. The royal visitors proceeded at once to the Russian section, and curiously examined the various costly products. Her Majesty was particularly struck with the richness and designs of the silks from Moscow, and also spent some time in examining the curiously embroidered leather, and other articles which come from the more Asiatic portion of the great Russian empire. The furs attracted a good deal of notice, the imperial pelisse, in particular, being taken out of its case and minutely inspected by her Majesty. A very interesting episode in the day's proceedings was the arrival of the whole adult population of three parishes in Sussex, headed by their clergyman, who had come up by excursion train early in the morning from Godstone. They had a previously prepared plan of the campaign, according to which they were first mustered in heavy marching order, each having a well-filled basket of provisions slung round his neck, under the transept. The word was then given for every one to go where he or she liked, but all with strict injunctions to meet at the trysting-place at four o'clock. It was quite amusing to see the punctuality with which they kept the appoint-

ment at that hour, and allowed themselves to be regularly marshalled two and two, to the number of 800, by their worthy pastor. They seemed to be mightily pleased with everything they had seen, except the agricultural implements, which they thought might do very well for the Crystal Palace, but would hardly do for the stiff clays of Sussex. The men were all dressed in new smock frocks, and the women most tidily and neatly attired, and did infinite credit to their district, and to the generalship of their worthy leader."

The late illustrious Duke of Wellington was also a not unfrequent visitor to these all-attractive precincts. Indeed his mind appeared to be singularly disposed, considering his great age, to investigate whatever was making progress in science, manufactures, or art. On one occasion, however, an incident occurred which, for a moment, occasioned some little anxiety, not to say alarm, yet from a cause which no effort of prudence could have prevented. When the crowd assembled within the building was at its culminating point, it was suddenly discovered that the Duke of Wellington was present. Instantly the manifestations of public admiration arose. Hats were taken off, and loud cheers burst forth, which were prolonged with immense energy. Those who were at a distance, surprised by an unwonted agitation which they could not understand, fancied that there was something wrong, and rushed towards the doors. The duke also felt the awkwardness of his position, and beat a retreat. His great age did not then permit him to execute such movements with the precision and firmness which in former days were his characteristics, but he made his way, nevertheless, to the south entrance of the transept with surprising alacrity, followed as he went by the most vigorous demonstrations of popular regard. Superintendent Pearce, with great tact, stopped the rush towards the places of exit, and, by his judicious management, the fears of the most timid spectators were in a few minutes effectually quieted.

While all classes of the people were thus passing their time in daily gratification, mingling enjoyment with instruction, a natural anxiety began to pervade the public mind respecting the future destiny of the glorious show that was so liberally spread out before them; of the transcendent edifice itself that, as if by magic, had suddenly arisen upon their astonished sight in full beauty and perfection; was it doomed as suddenly to disappear from their enraptured gaze—

“And like the baseless fabric of a vision
Leave not a wreck behind?”

The question “to be or not to be,” was agitated on every side, and various opposite and conflicting opinions were advanced and argued. We may, however, assuredly now congratulate ourselves that it was finally determined not to preserve it, beyond the period originally fixed upon, since to that wise measure we shall be indebted for a still more glorious Exhibition, upon a still more advantageous site, where, phoenix-like, it will arise from the destruction of the former one, and to which, if universal report is to be credited, we shall be able to apply the encomium of the prince of Roman poets,—

“O mater pulcher
Filia pulchrior.”

The *Athenæum* in particular advocated the the preservation of the Palace of Glass. “From the moment,” they observed, “when the Crystal Palace rose from the ground in its grace and beauty, for ourselves we never doubted, as our readers well know, about its fate; but even on that auspicious May-day we heard persons, anxious as ourselves for the success of the Exhibition, declare that in less than two years the grass would be again growing greenly over the area now inclosed with the crystal walls. Day by day, however, these misgivings have been abating, and at the end of three weeks we may assert that the financial success, too, of the great undertaking is assured. To pay the entire expenses of the Exhibition, and to buy

the building as a perpetual palace for the people, will require about £300,000. Towards this sum £65,000 have been raised by subscription—£65,486 have been received for the sale of season tickets; and up to Thursday night the amount received at the doors for admission was £37,702; making altogether, at the end of only three weeks, a total of £168,188. As the masses have yet to come in at the reduced rates, the receipts at the doors will probably not fall much below the average of £1,500 a day for the next hundred days:—and if so, we may add to the present total a prospect of £150,000. This, it will be seen, leaves a margin of surplus—though not a large one. Some of our sanguine contemporaries, astonished at a success so far beyond their pre-calculations, indulge in magnificent projects for the investment of a fund which seems to them boundless. There have been divers hints of buying up, not only the Crystal Palace, but all that it contains. Nothing seems impossible in face of the huge facts before them—and even figures would seem to have acquired a new power as applicable to the Great Exhibition. We are sorry to interfere with this calenture of the imagination—but Cocker must have his rights even in the Palace of Glass. The value of its contents has been variously estimated; but we have heard no one appraise them at less than twelve millions, and some calculations go up as high as thirty. Let us assume the lowest figure to be correct, for the sake of a sum to be worked after the venerable shade whom we have invoked. How soon could the Royal Commission raise twelve millions of money, even were they certain to receive from the public at the doors £2,000 daily over and above all the expenses of management? In just six thousand days, after deducting Sundays and other religious days, when the palace must of course be closed,—in exactly twenty years! Look at the question in another point of view. At £5 per cent. per annum, the interest on twelve millions is £600,000 a-year; or, leaving out Sundays and a few other as non-productive days, just £2,000 a day!

If the contents of the Exhibition be really worth twenty millions, a daily income of £3,300 would not discharge the mere interest on the capital lying dead in the Crystal Palace. The suggestion, therefore, of purchasing the Exhibition, in order to keep its contents together, is one which merely shows to what wild poetic heights the imagination may climb up to the wonderful shafts of the Palace of Glass.

Yet it is extremely desirable, if any means can be thought of to that end, that the collection should not be again dispersed. Probably no one has ever walked across that marvellous transept, or gazed down that extraordinary nave, without thinking with a pang on the probability of a coming day when the glorious vision is to dissolve—when this prodigious manifestation of the result of thought, genius, industry, and science, is to be resolved into its separate elements, never to be again united in the same mighty and marvellous whole. The world once possessed of an encyclopedia of knowledge like this, who can bear to think that the volume shall ever be closed, and its pages scattered to the distant corners of the earth? We never have, from the first, regarded this collection merely as a bazaar of all nations. We repeat, it is the first University in the large and full meaning of the word that the world has had: of which, Universities like Oxford and Cambridge look merely like affiliated colleges. But what is to be done? Why not this? We will take for granted, at the moment, that the royal commissioners, before laying down the temporary offices which they were appointed by the Queen to discharge, will purchase the Crystal Palace in the name of the English people. Should it then be announced to all the present exhibitors in the first instance, that such of them as have fitted up stalls or obtained spaces, may retain them for, say a year, on the condition of keeping them filled with their present or other contributions of the same high class of excellence—we think it probable that a great majority of the most useful and beautiful articles would be left on such terms.

The workers in silk, wool, worsted, gold, silver, iron, and copper, mahogany and other woods—the makers of musical and scientific instruments, watches, chronometers, carriages, agricultural machines and fountains; the producers of flowers and plants, decorators and stained-glass makers, sculptors and carvers in wood and ivory, printers and hand-workers of most kinds, would in all probability be glad to have such a universal and permanent exhibition-room for their wares, works, and discoveries. Many things of more curiosity and rarity would no doubt be removed; but the absence of the Koh-i-Noor, the Spanish jewels, the Indian diamonds, and similar articles, if it should be proved to lessen the mere splendour of the Exhibition, would not materially detract either from its moral interest or its practical usefulness. The earnest seeker after knowledge is more attracted by a collection of minerals and metallic ores than by the Russian or the Portuguese diamond valued at millions.

Specimens of the jewellery which borrow their highest value from the genius of the artist would probably be left as examples and advertisements. We do not doubt that it would be worth the while of our most eminent goldsmiths to maintain a show-room in the Great Exhibition, to be from time to time supplied with whatever is new and excellent in their current manufactures. The same may be surmised of our great drapery and silk mercers. What artist would not be glad to have a certain space assigned to him on the walls of the National Gallery on the easy condition of always having a picture hung there? In the Crystal Palace the artist and the artisan in silk, cotton, wool, metal, and so forth, might, under some such arrangement as we are proposing, obtain their National Gallery and Academy. Even in the series of costly and complicated machines in motion, we imagine that not a few of the most beautiful and interesting would be willingly allowed to remain. Most of these machines, we believe, are made in model. They cannot be sold or used in actual factories. If taken away, they will either be

broken up or buried in local museums. Their proprietors would naturally prefer that they should remain as their advertisements and representatives in the great centre of observation. There is plenty of room, besides, for a winter garden. Indeed, the place is a garden now; and its beauties in that respect would increase with every year. The contributions of industry leave plenty of space for trees, and shrubs, and flowers. The elm and the palm tree here grow side by side; and there will be room abundant for exotic plant and indigenous parterre. The works of mind and the works of nature already blend here with a harmony of tints and tones beyond the power of imagination to have conceived. There never was an epic thought or an epic poem at once so vast and so full of beauty. The infinite multiplication of the varieties have produced a great unity. The place is even now all that the heart, the senses, and the imagination can desire.

On the other side of the question, Lord Campbell, with all the authority of fur and ermine, speaking of the Palace of Crystal in the House of Lords, observed, that "from Penzance to Inverness and Aberdeen, the people were all called upon to join in sending up petitions, of which the common burden was to be the expediency of having a public promenade in a summer climate at all seasons of the year. He wished to bring under the notice of the house an authority against this project, which was to be found in the *Quarterly Review* just published. He knew not by whom the article was written, but it was evidently written by a gentleman skilful in literature and profound in science. He would only read two sentences from that article, but they should be the following: "Were the Crystal Palace to be kept up in spite of rather strong pledges, and, as some prophesy, to present us by and by with a wilderness of walks meandering through bowers of exotic bloom, it would be the most insalubrious promenade in London. If ever our admirable Palace of Glass becomes a showy, steamy, suffocating *jardin d'hiver*, it will be a capital thing for the apothecaries; such a vigor-

ous crop of colds, coughs, and consumptions will be raised that it will be the walk, if not the dance, of death, to frequent it." The writer gave this testimony against the visionary prophecies of Mr. Paxton, who talked of transferring to this country the sunny climate of Southern Italy. He (Lord Campbell) thought that the most useful object to which this building could be converted was that of an enormous shower-bath; for, even now, it was found that, when a heavy shower, or thunder-storm came on, it was necessary for the visitors within it to raise their umbrellas. The present was the last time that their lordships would be troubled with his voice on this subject, for he was about to leave town to administer justice in the country to her majesty's subjects. He left town, however, without anxiety, for he could not suppose that their lordships would assume the prerogative of his holiness the pope, and absolve the government and the royal commissioners from the promises which they had made solemnly and deliberately."

We shall conclude our present chapter with a few extracts from an admirable letter from the able pen of M. Hector Berlioz, on the occasion of an early morning visit to the Crystal Palace.

"You will not, I hope," observes our lively correspondent, "be under the apprehension of receiving from me a hundred-thousandth description of the Crystal Palace and its wonders, an ode to English industry, or an elegy on French indolence, with sundry digressions, in which would be found, more or less literally reproduced, the observations of the host of people who crowd the colossal glass edifice, the murmurs of the fountains which pour their freshness around, and the solemn peal of the organ, concealed amidst the foliage of druidical trees, rising heavenward, as in one incessant prayer, and consecrating human industry. You know my opinion of *impertinent* music; you need not then fear that I add my impertinent prose to that with which so many pens, eloquent or frivolous, ignorant or 'savantes,' artistic or venal—pens

of gold, of silver, of ivory, of goose-quill—have inundated the two hemispheres on this subject.

“No, no. I said ‘*Hug*!’ like a Mohican, the first time I entered the edifice. I uttered an English exclamation that I need not repeat on entering a second time; and I so far forgot myself as to suffer a French ‘*sacrebleu*!’ to escape me on my third visit: but to define to you precisely these three celebrated exclamations, I will not venture; besides, I should not succeed in the attempt—the ‘*hug*!’ especially is indefinable.”

After a lengthy disquisition on instrumental and vocal music, and the description of a visit to the cathedral of St. Paul’s, on occasion of the anniversary meeting of the charity children, our worthy critic finds his way to the Crystal Palace, having been appointed one of the Jury. We will give his account of this visit in his own words.

“On leaving St. Paul’s, in a state of semi-stupefaction, as you may readily conceive, I took boat on the Thames; and, after almost unconsciously having been drenched to the skin in a transit of some twenty minutes, I landed, half-drowned, at Chelsea, where I had nothing to do, and I had the right to expect to sleep. I heard incessantly echoed in my ear that harmonious swell, ‘All people that on earth do dwell,’ and I saw whirling before my eyes the cathedral of St. Paul. I was in its interior; it was by visionary transformation changed to Pandemonium. I had before me the celebrated picture of Martin; instead of the Archbishop in his pulpit, I saw Satan on his throne; in lieu of thousands of the faithful and children grouped around him, it was peopled with demons and the damned, who darted from the depths of visible darkness their looks of fire; and the amphitheatre of iron, on which these millions were seated, vibrated in a frightful manner, giving out harrowing and discordant sounds.

“At length, weary of the continuance of these hallucinations, I leapt from my bed, though scarcely light, went out, and wandered to the Exhibition, where, a few hours later, I had to attend as one of the Jury. London was

still slumbering; neither Sarah, nor Molly, nor Kate, were yet to be seen, mop in hand, washing the doorways. An old Irish crone, somewhat 'aginée,'* smoked her pipe, crouched under the entrance to one of the houses in Manchester-square.

"The listless cows were ruminating, stretched on the turf in Hyde Park. The little ship, this plaything of a maritime people, lay at anchor on the Serpentine; already some luminous 'gerbes' detached themselves from the elevated panes of glass of the palace open to 'all people that on earth do dwell.'

"The guard who kept the door of this Louvre, accustomed to see me at all kinds of unreasonable hours, allowed me to pass, and I entered. It is certainly a spectacle of singular grandeur, the Palace of the Exhibition at seven in the morning; the vast solitude, the silence, the softened light, the *jets-d'eau* motionless, the organs mute, the trees, and the surprising show of rich products brought from all nations of the earth by hundreds of rival peoples, ingenious works, the sons of peace, instruments of destruction which remind one of war,—all these causes of motion and noise seemed at such time to be conversing mysteriously among themselves, in the absence of man, in some unknown language, understood by 'l'oreille de l'esprit.' I felt disposed to listen to their secret dialogue, believing myself alone in the palace; but there were three of us,—a Chinese, a sparrow, and I. The eyes 'bridés' of the Asiatic were open before their time, as it would appear; or, perhaps, like mine, had been but imperfectly closed. With a little feather brush he was dusting his beautiful porcelain vases, his hideous grotesque figures, his varnished goods, and his silks. He then took, in a watering pot, some water from the fountain, and watered tenderly a poor Chinese flower, emaciated, doubtless, from being in an ignoble European vase; after which he went to sit down a few paces from his stall, looked at the tamtams hung there, made a move-

* A word cleverly coined by the writer,—*Anglice*, under the influence of gin.

ment as if to strike them, but remembering that he had neither relations nor friends to awaken, he let his hand, in which he held the gong-stick, drop, and sighed. 'Dulces reminiscitur Argos,' I mentally repeated. Assuming, then, my most winning manner, I approached him, and, supposing that he understood English, I addressed him with, 'Good morning, sir.' The only notice I received, however, was his rising, and turning his back on me; he then went to a cupboard, took out some sandwiches, which he began to eat without even honouring me with a look, and with an air of some disgust for this food of 'barbarians.' Then he sighed again. He was, no doubt, thinking of those savoury dishes of shark-fins, fried in castor oil, in which he delighted in his own country, of the soup of swallow nests, and of that famous jelly of caterpillars which they make so exquisitely at Canton. Bah! the cogitations of this rude 'gastronome' disgusted me, and I went away.

"Passing near the large piece of ordnance, the forty-eight, cast in copper in Seville, and which always seems, being placed opposite the stall of Sax, to defy him to make a gun of its calibre, I perceived a sparrow hidden in the mouth of the brutal Spaniard. Poor tiny one! do not be alarmed, I will not denounce thee. On the contrary—here—and drawing from my pocket a bit of biscuit that the steward at St. Paul's had obliged me to accept the evening previous, I crumbled it on the floor.

"When the Palace of the Exhibition was built, a tribe of sparrows had taken up their domicile in one of the great trees which now ornament the transept. They determined to remain there, notwithstanding the menacing progress of the work of the operatives. The poor birds could not imagine that they would have been enclosed in a large glass and iron cage. When they found how matters stood, they were a little astonished. They sought an exit right and left. Fearing that they would injure the articles exhibited, it was decided to kill them all, and this was effected with cross-bows, nets, and the perfidious 'nux

vomica.' My sparrow, whose hiding place I now know, and whom I will not betray, is the sole survivor.

"As I ruminated on these matters, a noise resembling heavy rain was heard in the vast galleries; it was the *jets-d'eau* and fountains which were set playing. The crystal 'chateaux,' the artificial rocks, vibrated under the fall of their liquid pearls,—the policemen, these 'bons gens-d'armes,' unarmed, which every one respects with so much reason, assumed their posts,—the young apprentice of M. Duroquet took his seat at the organ of his master, thinking of the new polka with which he would treat us,—the ingenious manufacturers of Lyons were finishing their admirable display,—the diamonds, prudently hidden during the night, reappeared sparkling in their cases,—the great Irish clock, in D flat minor, which surmounts the eastern gallery, struck one, two, three, four, five, six, seven, eight, proud of giving the lie to its sister of the church in Albany-street, which strikes in a major key.

"Silence had kept me waking, these notes made me drowsy, and the want of sleep became irresistible. I sat down before the grand piano of Erard, that wonder of the Exhibition. I leaned on its rich cover, and was about to take a nap, when Thalberg, tapping me on the shoulder, exclaimed, 'Holloa! *confrere!* the Jury is assembled. Come, wake! we have to-day thirty-two musical boxes, twenty-four accordions, and thirteen 'bombardons' to inspect!'"

CHAPTER XVI.

PERFUMERY.

GREAT ANTIQUITY OF — KNOWN AMONG THE EGYPTIANS—
RECORDED IN HOLY WRIT—EMPLOYED IN ANCIENT GREECE
AND ROME—VARIOUS PERFUMES, AND ARTIFICIAL ESSENCES.
PERFUMERY FROM AMERICA, AUSTRIA, EGYPT, FRANCE, GER-
MANY, TUNIS, TURKEY, UNITED KINGDOM—A SONNET.

“Now gentle gales,
Fanning their odoriferous wings, dispense
Native perfumes, and whisper whence they stole
Those balmy spoils.”—*Milton*.

As the all-bountiful hand of our beneficent Creator has decorated the surface of the earth with flowers innumerable, displaying on every side the richest and most variegated hues to attract and delight the sense of vision, so has he also gifted their graceful and elegant forms with sweet and refreshing odours, to sooth and gratify the sense of smell. We do not, therefore, consider it to be beneath the dignity of our pen to devote a few pages to the subject of perfumery.

“From the earliest times of which we have any record,” observes an able writer in the Reports of the Juries, upon whose observations we shall draw largely in our present article, “the sense of smell has been gratified with perfumes; the Egyptians applied them as conservative of the bodies of their deceased friends, and as incense before their venerated deities. On the wall of every temple in Egypt, from Meroe to Memphis, the censer is depicted smoking before the presiding deity of the place; on the walls of the tombs glows in bright colours the preparation of the spices and perfumes for the embalming of the mummy; and these very mummies and the vases of oriental alabaster transported to our museums, tell with eloquence the same tale.

“From the time of the *Exodus*, throughout the long period

of Jewish history, Holy Writ records the use of perfumes. Moses speaks of being directed by the Lord to prepare two perfumes, according to the art of the apothecary or perfumer, one of which was to be offered from the Golden Altar, and the other to be used on the person of the officiating priest. The 'Spouse,' in the Canticles, is enraptured with the spikenard, the cinnamon, the aloe, and the myrrh; and Ezekiel accuses the Jews of diverting the use of perfumes from the holy things to their own persons. In the New Testament, also, are contained frequent references to the use of perfumes, many of which will be in the memory of our readers. Especially, however, they will remember, in chap. xiv. of the Gospel of St. Mark, that when Jesus sat at meat in the house of Simon the Leper, 'There came a woman having an alabaster box of ointment of spikenard, very precious, and she brake the box and poured it on his head.'"

Of the use of these luxuries by the Greeks, and afterwards by the Romans, the detail is more copious. Anacreon makes frequent mention of ointments and odours in his charming lyrics; and we are all, from our school-days, conversant with the celebrated ode of Horace—

"Quis multa gracilis te puer in rosa
Perfusus liquidis urget odoribus,
Grato, Pyrrha, sub antro?"

Pliny also gives much information respecting perfume-drugs, the method of collecting them, and the prices at which they were sold. Oils and powder-perfumes, according to Seneca, were most lavishly used; for even three times a-day did some of these luxurious people whom he describes anoint and scent themselves, carrying their precious perfumes with them to the baths in costly and elegant boxes called *Narthece*. Hence the elegant reproof of Horace—

"Persicos odi, puer, apparatus."

The trade from the East in these perfume-drugs caused many a vessel to spread its sails to the Red Sea and many

a camel to plod over that track which gave to Greece and Syria their importance as markets, and vitality to the Rock City of Petra. Milton, in the following beautiful lines in his *Paradise Lost*, refers to this trade,—

“As when to them who sail
Beyond the Cape of Hope, and now are past
Mozambique, off at sea north-east winds blow
Sabeian odours from the spicy shores
Of Araby the blest; with such delay
Well pleased they slack their course, and many a league
Cheer'd with the grateful smell old Ocean smiles.”

And Southern Italy was not long ere it occupied itself in ministering to the luxury of the wealthy by manufacturing unguents or perfumes. So numerous were the “*unguentarii*,” that they are said to have filled the great street of ancient Capua, the Seplasia. In short, whether to regale the nostrils of their deities while sacrificing, or their own while feasting, or to prevent those nostrils from being offended by defunct humanity, or the exhalations from crowded masses of people, the consumption of perfumes by the ancients was enormous. Happily, in modern times, the use of soap has superseded the necessity for their lavish employment.

When we consider that there are some persons who appreciate the strong-smelling musk—and we confess ourselves to be among the number—more highly than any other, and another who would

“Die of a rose in aromatic pain,”

the definition of perfume becomes a matter of some difficulty. Notwithstanding, however, the various impressions that volatile substances make upon different constitutions, a few general principles may be determined by which perfumery may be judged. In the first place, it is necessary to distinguish whether the substance is a chemical compound, or whether it is a mechanical combination of various chemicals. In the former case, if carefully prepared, it is independent of the perfume, and its odour,

whether agreeable or repulsive, has a determined character of its own. In the latter case, that is, if the scent depends upon a mixture of substances, an opportunity is offered to the manufacturer of exhibiting his skill. Perfumes, on evaporation, should yield no resinous residue, and the various essential oils of which they are made ought to be combined so harmoniously that none of the components is perceptible, not only at first, but even during the progress of evaporation. The less the ingredients differ from one another in odour and volatility, the less difficult it becomes to achieve this desideratum. Hence, well-prepared Eau-de-Cologne is generally considered to be the perfection of perfumery. The constituents of this scent are, so far as is known, the essential oils of the lemon, the citron, and orange, prepared from the fruit in different stages of maturity, and they approximate so closely to one another, as to produce a single aromatic impression. Other oils are added to Eau-de-Cologne, but in so minute a proportion that they scarcely demand any notice in comparison with those mentioned. Eau-de-Cologne that leaves a residuary odour, either of otto of roses, oil of cloves, or oil of cinnamon, after volatilization, however agreeable these oils may be to individuals, must be designated as of inferior quality.

Still much practice is necessary to ascertain differences in the quality of the perfumes, and the task is rendered more difficult if numerous specimens have to be compared; for this reason the Chemical Committee returned repeatedly to the examination of the various specimens before reporting to the Jury, by whom the awards were only fixed after a further investigation.

Several of the perfumes, or rather essences, exhibited are of peculiar interest, and deserve an especial notice. We allude to a series of artificial organic compounds possessing qualities which permit of their substitution for natural volatile oils and essences. Most of them are substances belonging to the group of compound-ethers. The fruity odour of these bodies has been long known, but they do not appear to have been used in flavouring until

the chemist had shown that many of the oils of vegetable origin resemble in their composition the above-mentioned products of the laboratory. For some years past a scent called winter-green oil has been extensively used in perfumery; it is obtained from an ericaceous plant, the *Gaultheria procumbens*, and is imported from New Jersey, in America, where it is obtained in considerable quantities. Chemical analysis of this oil has yielded the interesting result that it is a true compound-ether, consisting of salicylic acid and pyroxylic spirit, which may be formed by a combination of its proximate constituents, so as to possess all the characters of the natural substance. This observation was not lost upon commercial enterprise, and several of the numerous ethers prepared by the chemist were soon discovered to present the odour of certain fruits in so marked a degree, that it was difficult not to conclude that the fruits in question owed their smell to these ethers.

Several artificial essences of this kind were exhibited. Neither the time nor the quantity of material at the command of the reporters permitted them to examine all these products, they were, therefore, obliged to confine themselves to a notice of the following:—

Pear Oil is a spirituous solution of acetate of oxide of amyl. The latter may be obtained with facility and in any amount by distilling equal parts of concentrated sulphuric acid and fusel oil (the oily residue obtained by the rectification of potato or grain spirit) with two parts of acetate of potash. It is remarkable that the ether itself does not possess a very pleasant odour, and that its striking resemblance to that of pears does not become apparent until properly diluted with spirit. Artificial pear-oil is now prepared in large quantities in England. It is chiefly employed in the manufacture of the lozenges called pear-drops, of which the Exhibition presented some specimens, so that the flavour in its applied state may be tested side by side with the perfume.

Apple Oil consists mainly of valerianate of oxide of amyl. It is obtained as a secondary product in the pre-

paration of valerianic acid, by the distillation of fusel oil with bichromate of potash and sulphuric acid. The distillate has to be shaken up with a dilute potash solution, in order to remove the valerianic acid, when the ether floats on the top, and may be removed with a pipette.

Pine-apple Oil was contributed by most of the exhibitors of artificial essences. The specimen analysed was found to consist almost exclusively of butyrate of oxide of ethyl, or common butyric ether. It is easily obtained by boiling butyric acid (obtained from sugar by fermentation with putrid cheese) with strong spirit and a small quantity of concentrated sulphuric acid. It resembles the acetate of oxyde of amyl, in not presenting the characteristic agreeable fruity flavour, in a pure state; it requires to be considerably diluted before the odour appears. This oil is largely manufactured in England, and is employed in the preparation of a beverage called pine-apple ale. The process commonly used for its preparation does not yield perfectly pure butyric ether. It consists in saponifying fresh butter with potash; the soap that forms is separated from the liquor, dissolved in strong alcohol, and distilled with concentrated sulphuric acid. This yields a mixture of butyric ether, and various other ethers, but the liquid obtained is perfectly adapted for the purpose of flavouring.

Cognac Oil and Grape Oil.—Specimens of these oils, especially of the former, were contributed by English, French, and German manufacturers. They seem to be often employed with the view of giving ordinary varieties of brandy the prized flavour of genuine cognac. Unfortunately, the samples exhibited were too small to admit of a careful analysis. A few superficial examinations proved undoubtedly that they are compounds of fusel oil dissolved in a large quantity of alcohol; and it is curious that a substance which is most carefully eliminated from brandy, on account of its offensive flavour, should be introduced in another form, and in minute quantities, in order to render the same beverage aromatic.

Artificial Oil of Bitter-Almonds.—As early as 1834,

Professor Mitscherlick, of Berlin, pointed out a peculiar liquid formed by the action of fuming nitric acid upon benzole, and possessing the odour of natural oil of bitter-almonds in a high degree. It was called nitro-benzide, or nitro-benzole. The preparation of this compound was, however, too expensive to admit of its substitution for natural oil of bitter-almonds, as the sole sources of benzole, at that period, were the compression of oil-gas, and the distillation of benzoic acid. In 1844, one of the reporters, Dr. Hoffman, succeeded in demonstrating the presence of this substance in common light coal-tar-oil; and in 1849, C. B. Mansfield showed, by a careful investigation, that benzole may be easily obtained in large quantities from tar oil. In the French department, under the fanciful title of "*Essence de mirbane*," the reporters met with several specimens of oils, which, on examination, proved to be nitro-benzole, of more or less purity; they were, however, unable to obtain any positive information as to the extent of this manufacture; but it does not appear to be very considerable. The method employed in England for its preparation was devised by Mr. Mansfield, and is very simple; his apparatus consists of a large glass tube, in the form of a coil, which at the upper end divides into two tubes, each of which is provided with a funnel. A stream of concentrated nitric acid flows slowly into one of the funnels, and benzole, which for this purpose need not be perfectly pure, into the other. The two substances meet at the point of union of the two tubes, and chemical combination ensues with the evolution of much heat; but as the newly-formed compound flows down through the coil, it becomes cool, and is collected at the lower extremity. It then merely requires to be washed with water, and lastly, with a dilute solution of carbonate of soda, to render it fit for use. Nitro-benzole is closely allied to oil of bitter-almonds in its physical characters, yet it presents a slight difference of odour, which may be easily detected by an experienced person. It is very useful for perfuming soap, and is probably

capable of application in confectionary and cookery, as its flavour resembles that of bitter-almonds, without containing any hydrocyanic (prussic) acid.

We will now proceed to notice the various specimens of perfumery which were sent for exhibition from different parts of the world. We shall proceed alphabetically, and accordingly commence with—

America, whose display in this article was not very imposing, consisting chiefly of spirituous essences, and which were found to be inferior to that exhibited by other countries.

Austria had only one exhibitor, John Maria Farina, whose contribution, however, of Eau-de-Cologne, was upon a very magnificent scale, which nevertheless was so liberally distributed to the public by means of a small fountain, that the supply in charge of the attendant was exhausted before the Jury made the awards, so that only the residue left in the fountain was submitted to them. As the specimen had evidently lost much of its perfume from exposure to the air, the reporters, at the request of the Austrian Commissioner, M. C. Buschek, and with the sanction of the executive, examined, subsequently, a fresh sample, which was taken from a cask of Eau-de-Cologne, which had remained under the care of the customs, and which had been overlooked by the attendant. This sample was found to be equal in quality to the Eau-de-Cologne rewarded with honourable mention.

Egypt furnished a few interesting and excellent specimens of perfumery, comprising rose-water of Fayoum, orange-flower-water, and mint-water of Rosetta.

France. — The Parisian perfumers produced excellent toilet-soap, remarkable for the fragancy of the perfume. Many French people, however, never use soap to their faces, employing as a substitute aromatic vinegar, a few drops of which are added to the water used in washing. Hence the “vinaigre-de-toilette,” is an important manufacture, which is chiefly monopolized by Paris, whence it is sent to all parts of France.

Spirituous perfumery is prepared in great perfection by the manufacturers of Paris, some of whom distil their own essential oils; they generally, also, combine with it the manufacture of toilet-soaps, and hence, with a few exceptions, toilet-soaps and perfumery were exhibited together, and were conjointly rewarded. In the preparation of essential oils, the flowers are placed in a still, with water, and distilled. The vapour of the water carries over with it that of the essential oil, and both condense together, the essential oil swimming on the surface of the water, which, however, always retains a minute portion in solution. To recover this, the water is usually returned to the still, and again passed over; M. Piver, one of the French exhibitors, however, instead of so doing, employs the water for the perfuming of pomatum and hair oil, which from their attraction for essential oils, withdraw them from the water.

In 1847 there were, it appears, 110 perfumers in Paris, employing 721 workpeople in the manufacture of toilet-soaps, cosmetics, essential oils, and spirituous and aqueous perfumery, the value of whose productions was £389,681. The workmen earned, on the average, *2s. 7d.* per day, the workwomen *1s. 4d.* According to M. Natalis Rondot, 12,042,970 lbs. of soap, valued at £142,012, were exported in 1850 from France, a quantity which, as will be hereafter seen, nearly equals that exported from Great Britain in the same year: besides which, 3,398,930 lbs. of perfumery, in value, £431,638, were also exported from France.

There were two exhibitors of artificial essences in France. One sent simply a series of compound flavourings, intended to imitate the savour of various fruits; the second exhibited two specimens of chemical compounds, namely, artificial essence of bitter-almonds, and artificial essence of pine-apple.

Germany.—The perfumers in Germany were in great force, being eight in number, and reckoning two John Maria Farinas in their ranks, making no less than four

Farinas in the Exhibition, all claiming to be the original. It appears that speculation is carried to so high a pitch in Cologne, that any child entitled to the surname of Farina, is bargained for as soon as born, and christened Jean Maria; at times this event is even anticipated. The perfumery of Germany is generally very good.

Tunis.—The Tunisian collection of perfumery consisted of scented waters, without any admixture of alcohol; they are prepared by distilling the flowers with water in a copper still. The ottos of Tunis, which are obtained by repeated distillations, are prized as being more fragrant, and are consequently more costly than those made in Eastern countries, the usual price being from £3 : 15s. to £5 per ounce, according to the description of flower from which they are obtained. Perfumery constitutes a most important branch of commerce in Tunis, a great quantity of scented waters being annually exported to France, Genoa, and Malta. There were also specimens of swak, which is used by the Moorish women for whitening their teeth; and perfumed necklaces, noticed in the list of awards.

Turkey.—The perfumery exhibited by this country, consisted of orange-flower-water and rose-water, both very fragrant. Tensouh, or musk-paste; Kouderma, or pastilles, for burning in the Seraglio; Tensough, or musk-paste medallions, purses, and necklaces; and amber Tesbihs or chaplets, made of a paste composed of various perfumes. As the names of the exhibitors of these various articles were not given, and as it appeared that the specimens were bought at the bazaars, they were included in one general award to the Sultan.

United Kingdom.—The English perfumery was found in many cases to be very fragrant and agreeable; but in others, the employment of an excess of some strong-smelling essential oil, rendered the compound anything but a desirable article for the toilet. The imports of perfumery into the United Kingdom, in the year 1850, were valued at £1,907, and a duty was paid of £191,

but in all probability some spirituous perfumes were included under the head of "oils, chemical, essential, and perfumed," of which 172,139 lbs. were imported, and which yielded a duty of £12,772. Two exhibitors contributed specimens, to which allusion has been made in the preceding pages, and to which a degree of interest attaches, as being among the first attempts at the application of harmless chemical compounds, for the imitation of the flavour of fruits and liqueurs, namely, oil of pears, oil of grapes, oil of apples, oil of pine-apples, oil of cognac, and onion sauce. Prize medals and honourable mention were not wanting to reward various exhibitors of the several articles described above.

We had just concluded our dissertations on this subject, so important to the toilet, when we were broken in upon by a literary lady, whose advice we are always glad to take on matters of taste and *virtú*. The foregoing pages were accordingly submitted to her inspection, and her opinion requested. After due perusal of them, and a few minutes deliberation, my fair monitress, assuming an air of poetic inspiration, expressed herself in the following lines, which struck us as so elegant and appropriate a termination to our chapter on perfumery, that we make no apology for presenting them to our readers.

Take back your "Essence of a thousand flowers,"

The scents compounded by the chemist's art
Suit only crowded rooms and midnight hours ;

Give me the native perfumes that impart
Their fragrance to the breath of early morn :

I love "the firstlings of the infant year,"
The pale primrose, the violet steeped in dew,

The "dancing daffodils," to poet dear,
The yellow cowslip, and the hare-bell blue,

The milk-white blossoms of the rugged thorn,
The wild-rose, and the slender eglantine,

The clustering honey-suckles that entwine
Around my lowly cot, and rustic bowers ;

Keep then your "Essence of a thousand flowers."

CHAPTER XVII.

PAPIER MACHE—INVENTED IN FRANCE—INTRODUCED INTO BIRMINGHAM—JENNINGS AND BETTRIDGE—CLAY—BIELEFIELD—METHOD OF PREPARATION—BELL'S "VICTORIA REGIA" COT—ELIZABETHAN CHAIR—OXFORD SPECIMENS BY SPIERS AND SON—EMBOSSSED LEATHER—ITS GREAT ANTIQUITY—ANNE BOLEYN'S TOWER—M. DULUD—A. DESPREAUX—LEAKE—PAPER STAINING, HANGINGS, ETC.: HISTORY AND IMPROVEMENT—FRENCH, RUSSIAN, AND ENGLISH EXHIBITORS—MAGNUS'S ENAMELLED SLATE—SCAGLIOLA—MODE OF PREPARATION—DOLAN'S GOTHIC ARCH—ORSI AND ARMANI'S METALLIC LAVA—IMITATIONS OF FLORENTINE MOSAICS.

AMONG the numerous articles displayed at the Exhibition, there were few which, in their manufactured or finished state, were more attractive to the sight, or which had higher claims to the admiration of the visitor, than those formed of the material known as papier-mâché. Whether in the shape of domestic furniture, to which it has recently been applied, or in articles of general domestic utility, its beauty and agreeableness are equally striking. Indeed, such is the nature of the material—so ductile, so light, and so economical—that it appears adapted for almost universal application. Admitting a polish almost equal to that of glass itself, and receiving colours nearly as bright as those capable of being placed upon canvas, it furnishes a most attractive surface alike to the industrial skill of the humble artisan and to the genius of the artist.

The merit of inventing this beautiful and useful material is claimed by our French neighbours, and the manufacture of the article is carried on to a great extent in Paris; but in the application of this substance to articles of general domestic utility and ornament, it cannot be disputed that we are far ahead at present, not only of France, but of the entire Continent. Indeed, to such an extent is it carried out, that it may almost be considered an indus-

trial art peculiarly our own; and for papier-mâché work Birmingham stands unrivalled. There is an active competition between the English and French work in France itself; indeed, so keenly is the competition felt by our neighbours, that they impose an exceedingly heavy duty upon its importation, amounting almost to a prohibition upon the low-priced articles.

The manufacture of papier-mâché articles was, we believe, first introduced into Birmingham by Messrs. Jennings and Bettridge, of Halkin-street, Knightsbridge—their principal manufactory being at Birmingham—about half a century since. At this stage of the manufacture tea-trays only were made. The inventor and patentee of the manufacture of tea-trays in papier-mâché was Mr. Clay, of Birmingham. The firm has, from the commencement, gradually proceeded to develop the capabilities of this material by adapting it to new purposes, until the variety of articles now produced is almost innumerable. Articles of furniture made from it, such as chairs, tables, sofas, cabinets, secretaires, screens, vases, and even pianofortes, were displayed at the Exhibition, with writing-desks, work-boxes, papeteries, inkstands, &c., in almost endless variety of style and decoration.

In addition to these purposes, the material has been applied for scrolls, foliages, cornices, mouldings, and other articles of internal decoration. Saloons and halls are decorated with panels of papier-mâché, in a style which has all the beautiful effects of enamelling; and under ordinary circumstances has been found to be remarkably durable. Admirable specimens of panel-work, formed of this substance, are also to be seen in the saloons of the Europa, Asia, Africa, Hindostan, and Oriental steam-packets; but we question whether the material is adapted to bear the constant wear and tear caused by the jarring and shaking of steam-power and weather combined. Mr. C. Bielefield, of Wellington-street, Strand, has, by his skill and enterprise, done much for the extended use of this material for all kinds of ornamental purposes, whether required

for flat surfaces, or in the most elaborate picture and glass frames.

In the manufacture of papier-mâché, the paper used is similar in texture to ordinary blotting-paper, but of a grey colour. Prior to using it, it is well saturated with flour and glue, mixed with water, in about equal proportions, and is then laid on the mould of the article intended to be produced. These moulds are of iron, brass, or copper. The mould, coated with the first layer of paper, is then dried at a heat of 90 or 100 degrees Fahr., for twelve hours. A careful smoothing by a file follows, after which another deposit of paper is made. The processes of drying and smoothing are successively repeated with each additional layer of paper, until the article assumes the required strength and thickness, some commodities having been made of six inches in thickness. An ordinary tea-tray, of a quarter of an inch in thickness, takes about thirty sheets of paper, or ten layers. When the newly-formed article is taken from the mould, the several parts are planed, filed, and trimmed, so as to be correct and level. A process of "stoving" next follows, in which the varnish is laid on, and brought to a smooth, hard, and brilliant surface. This completed, the most delicate portion of the manufacture commences. The article is coated with several layers of shellac varnish, coloured, which, after being hardened by a heat of 280 degrees, are scraped level with implements of various degrees of smoothness. The different varnishings, with the subsequent operations, are carried on for a period varying from twelve to eighteen days, according to the purpose for which the article is required. The exquisite surface which characterizes the finished goods is a distinguishing feature of this material. It is produced by manual polishing with rotten stone and oil; but the finish of the articles—the peculiar brilliancy which lends such a freshness to the painting—is produced independently of rotten stone or other powder, by the process of "handing" alone.

Among the largest exhibitors of this article were Messrs.

Jennings and Bettridge, Messrs. Jackson and Son, of Rathbone-place, Messrs. McCallam and Hodgson, Mr. Lane, and Messrs. Spiers and Son, of Oxford. Among the specimens shown by Messrs. Jennings and Bettridge, is perhaps the most extraordinary article yet produced in this material—a case for a pianoforte, with music-stool and canterbury, designed in the Italian style, and treated with great simplicity of decoration; the only ornament employed being variously-tinted pearl, the effect of which on the jet-black of the case is very rich, and at the same time exceedingly chaste.

The "Victoria Regia" cot, designed by Mr. J. Bell, sculptor, and highly wrought in gold and colours with emblematical devices, attracted considerable notice, but was not to our taste, the colours being gaudy and cold, and the shape by no means graceful. There were also—A "multum in uno" loo-table on a new principle, combining bagatelle-board, chess, draughts, &c., ornamented with inlaid pearl and gold. A lotus work-table, designed by Mr. Bell, fitted on a new principle, and decorated in a style appropriate to the form. A lady's work-table, of a shape suggested by the celebrated vase of Benvenuto Cellini, richly inlaid with pearl and gilt. "The day-dreamer" chair, designed by Mr. H. Fitz-Cook, and ornamented with figures, flowers, &c., allegorically arranged, had a curious and novel appearance; but saying that, we have said all. The figures, emblematical of sleep, dreams, good and bad, were too fanciful and too large, and the colour, generally, was cold and uncomfortable. A "légère" chair, inlaid with pearl, was remarkable for its light elegance combined with strength. A "Prie-Dieu" chair. A chair, styled Elizabethan, was more properly after the form of the period of William III. Several trays, including the "Pacha's" tray, ornamented in gold and colours, 58 inches in diameter.

The contributions of Messrs. Spiers and Son, of Oxford, consisted of tables, cabinets, desks, work-boxes, albums, portfolios, waiters, tea-caddies, &c., ornamented with views

of the colleges, public buildings, college gardens, and other objects of interest in the University and its neighbourhood. We noticed in them endeavours after a truer and less meretricious style of ornamentation than usually prevails. As the taste of the Oxford people seems to run in a contrary direction to that of the usual purchasers of this description of goods, this firm has taken up the ornamentation of papier-mâché in a new style. Instead of adopting the usual subjects of birds, flowers, Chinese landscapes, arabesques, or other less pleasing styles, they conceived that picturesque representations of architectural and landscape subjects, treated in an artist-like manner, to which other ornament should be subservient, would be equally interesting to many persons, equally popular, and more conducive to the diffusion of a sound taste. Messrs. Spiers immortalised their native and most learned city in every possible point of view, and upon every possible variety of article. We had Oxford from the fields, and Oxford from the river, Oxford in the streets, Oxford colleges, Oxford halls, Oxford staircases, and Oxford seals. These paintings, which were scattered over desks, tables, secretares, and work-boxes, were all beautifully executed.

EMBOSSSED LEATHER.

The specimens of Embossed, or Relievo Leather, in the Crystal Palace, although exhibited but by three firms, two French and one English, identical in their manufacture and mode of treatment, were of sufficient importance to demand a distinct notice. From all that we can collect in reference to the earliest history of the art, it is clearly to be traced as far back as 900 years before Christ, the British Museum possessing some scraps and pieces of gilt leather straps taken from mummies, upon which are relieved figurements of King Orsokon adoring the god Bhém, and others of Amoun Ra Harasaphes. Italy, Spain, and Flanders, centuries ago, were eminent for their relieved leather, the flat or ground-work of which was usually gilded, silvered, or coloured;

and recently Germany, France, and more especially Great Britain, took the lead in this department of art manufacture. An able writer, while dwelling with much gusto upon this subject, says, the distinct relief in which the patterns could be embossed, the brilliancy of colour of which the leather was susceptible, the high burnish which could be given to the gold, the durability, ease of application, and resistance of damp, rendered the material peculiarly fitted for panels and hangings. It was a warm and gorgeous covering for the walls, affording infinite scope for art, taste, workmanship, and heraldic emblazonment, and the exclusiveness of wealth, and was therefore largely used in the decoration of palaces and baronial halls. At Blenheim, Hinchinbrook House, Norwich Palace, Knockton Hall, at Lord Scarborough's, and in many private collections, leather tapestries are still to be found, preserving the utmost brilliancy of colour and gilding. Some of the leather tapestries at Hinchinbrook, it is said, bore the name of Titian. About 1531, or 1532, Henry VIII. built a manor-house near Eastham Church, in Essex, with a high, square tower, that during her sort of year of probation Anne Boleyn might enjoy the prospect of the Royal Park at Greenwich. This tower had hangings of the most gorgeous gold leather, which remained until fifty years since, when the house coming into the hands of a proprietor with no especial love for the memory of the bluff Harry, nor the sad hauntings of the fate of Anne Boleyn, nor the old art and workmanship of leather decoration, but a clear perception that in so many yards of gilt leather, there must be some weight of real gold, had the tapestries taken down, sent to the goldsmith's furnace, and some £60 worth of pure gold gathered from the ashes.

In the French department, No. 1202, M. Dulud, of Paris, exhibited several pieces of tapestry and ornamental hangings in embossed leather, which appeared identical in subject and the method of their preparation with those of Mr. Leake in the Fine Art Court. He likewise showed

two elbow-chairs, lined with embossed leather, and other articles of furniture similarly decorated, amongst which a cabinet was the best, and which served admirably to shew the fitness of leather, where the appearance of elaborate carving is required. Opposite to these was No. 164, A.A. Despreaux, a collection of Venetian leathers of similar pretensions, but differing as widely as possible in their result. The patterns selected as models are well known by us to be very admirably adapted for the purpose; but whether to disguise the original source, or from inefficiency in the operatives, nothing could have been more impotent than the conclusion, and scarcely anything more execrable in taste, than the method in which they were daubed with colour. All drawing, all grace, and all notions of chromatic harmony were cast to the winds. If these in any way resembled the decorated leathers at the period of their decline and ultimate abandonment, we can scarcely wonder at the total extinction of this branch of art manufacture in those countries which were eager to appreciate it in its palmy days.

Mr. Leake's (of Warwick-street, Golden-square) collection was in the Fine Art Court. To this exhibitor's perseverance we are indebted for the revival of this branch of art manufacture in this country; and we do but justice in stating, that the models from which he has hitherto made selections are of the very best and most classic styles.

PAPER-STAINING, HANGINGS, ETC.

The following general account of the arts of paper-staining and hanging, is abridged, with slight alteration, from Grant's interesting little volume, *The World and its Workshops*:—The art of paper-staining and paper-hanging has now become one of the most interesting and useful branches of industry, whether viewed in relation to the amount of skilled labour and capital employed, or the elegance, refinement, and convenience which it supplies to our social wants. Paper-hangings are of comparatively

modern date, being originally manufactured as a cheap imitation of the rich stuffs and tapestries used by the wealthy and great in the coverings of the walls and wainscotings of their apartments. The French, we believe, were the first to bring them into general use.

Paper-hangings may be divided, for convenience sake, into three branches — the flock, the metal, and the coloured. Each of these appears to have been invented at different times, in imitation of a material then much in vogue, as, for instance, the flock to imitate the tapestries, the coloured to imitate the gilt leather which the Spaniards brought into general use, and, lastly, the metal, which was intended as an economical substitute for painted decorations. Beckman, in his *History of Inventions*, states that flock paper was first manufactured in England, by one Jerome Lanyer, in the reign of Charles I.; the *Dictionary of Commerce*, of 1723, under the head of *dominoterie*, or marble paper, such as is used by the old bookbinders, gives a minute description of the mode of printing the latter, and cites statutes to regulate the industry, dated 1586, in which rules are given as to what kind of presses are to be used by the *dominotiers*, and prohibiting them, under heavy penalties, from printing with types. Here we catch a glimpse of the keen-eyed vigilance of the Romish church, which dreaded the progress of the Reformation, then spreading fast and far into every region of human thought. From the preceding relation, it is fair to infer that block-printing was first practised in France.

It is evident that the art of paper-staining and paper-hanging was carried on in this country to a considerable extent, from the time of Charles I. down to Queen Anne; and its subsequent history may be traced, with comparative accuracy, by the decorations adopted by the nobility and gentry, several of which are still preserved, either on the walls of their apartments, or in the works devoted to the illustration of their mansions. In the year 1712, the tenth of Anne, a duty of 1½*d.* per square yard was im-

posed on the manufacture of stained-paper; and some of the flock-paper, one hundred years old, resembles, in every respect, the modern material. The art of flocking, in fact, was disused, and almost lost, during a period of twenty years, and revived only about sixty years ago.

There were formerly three modes in which paper-hangings were manufactured—by printing the outline with blocks, and then colouring by hand, by stenciling, and by blocks alone. The first of these methods is that adopted by the *dominotiers*. The second, stenciling, is performed by cutting out either on paper, leather, or other materials, the pattern to be represented, and then placing this on the proposed ground, and brushing it over with the proper colour. This mode gives an imperfect outline, and is seldom used, except by plasterers, to ornament coloured walls. The third is the mode now almost universally adopted, whereby every colour is applied by a separate block, according to the tints and shadows intended to be represented: but within the last two years a great improvement has been effected in this mode of paper-staining, by using several colours on one block, which is a great saving both in labour and cost, besides producing a more effective article at the same price. The Messrs. Potter, we believe, were the first to introduce this improvement, which has since been successfully followed up by Messrs. Hinchliff, who, on some occasions use as many as twenty-five colours on a single block, the effect of which, upon the labour cost of the article, may easily be conceived.

The contributions to the Exhibition, in this branch of industry, were peculiarly rich and diversified; and, as was to be expected, France, if we may be allowed such a metaphor, was the radiant star on the horizon. The specimens of M. Delicourt, Mader Frere, and Genoux, left our manufacturers at a considerable distance, as regarded the highest class of paper-staining.

The papers in the Russian contribution were more curious than effective in style and execution; in almost

every respect they were inferior to those from Austria, and much below those of Belgium, France, and England. America, we think, was about upon a par with Russia in this respect.

In 1754, Jackson, of Battersea, a manufacturer, published a pamphlet on the invention of printing in chiar'-oscuro, and its application to paper-hangings, which he executed in imitation of the most celebrated classic subjects; and various attempts have since been made in the same path; the last, and one of the boldest, is that of Jeffrey and Allen, who have used what they considered the best portion of the Elgin-frieze, in twenty-four feet of length.

Scott, Cuthbertson, and Co., showed a simple and handsome Tudor panelling in the eastern gallery. The effect of the gold upon a white ground, as the paper was hung, was necessarily much softer than the drawing would suggest: the border, however complex, was by no means confused; much of this might be owing to the quantities of colour, which, as in their other paper, was a bold attempt at reconciling apparently equally forcible colours.

Turner's *cerise* was particularly elegant and lady-like. These patterns excited unusual attention, on account of the precision claimed for the manual labour of printing the blocks. The test is very simple, and the same part of the sheet of paper may receive ten or a dozen blows from the blocks without slipping, or causing a faulty impression. This pattern was a design by Marchand, of Paris. Underneath it were two patterns, which possessed the property of altering their appearance as the eye of the spectator moved, becoming alternately light on a dark ground, and dark on a light ground pattern. This effect of "glancing," as it is now termed, has not been introduced by this house so much as twelve months, and is still a novelty.

Townshend, Parker, and Co., had an arabesque paper pattern, quite good enough for hand painting. This certainly was considered the most praiseworthy of this

class of productions. Their plain flocks on each side of it gained by the contrast: for their purity and neatness of outline, joined to the solidity of the flocking, were well set off by the general deep tones of the arabesque.

ENAMELLED SLATE.

As we are on the subject of artistic decoration, we shall now direct the attention of our readers to a very interesting manufacture, which, from the various elegant articles exhibited in its department, attracted general attention and admiration. We refer to imitations of costly marbles in slate. So perfectly faithful indeed were these imitations, that foreign visitors especially, could with difficulty be persuaded that they were not the precious materials themselves. On the ground of novelty, enamelled slate stands unrivalled, for, until the last few years, the uses of slate were limited to the roughest purposes. An occasional piece had indeed been smoothed, painted, and varnished in the style of tea-trays, and ornamented with a flower or bird in the Birmingham fashion; but it remained for Mr. Magnus, of Pimlico, to display its full capabilities, who, by means of a new, very simple, and inexpensive process, has succeeded in producing works of great magnitude and importance, calculated to effect the introduction of slate for household purposes on a very extensive scale. The advantages of the material as thus used, consist in its great strength, its lightness, as compared with that of marble, and its adaptability to all kinds of artistic decoration at a small cost.

With regard to the strength of slate, it is computed to be about four times that of ordinary stone, and slabs eight feet long and upwards can be very safely used of thicknesses not exceeding half-an-inch. The extreme compactness of the material, and its perfect non-absorbent qualities, render it well adapted as a lining for walls, where it may be placed without even plastering. In this respect it is preferable to any kind of cement. In the decoration,

the exact method of laying on the colour is not communicated; but the slate, after being coloured, is exposed for several days to a temperature of from 300 to 500 degrees Fahr., and the colours are thus rendered so permanent, that washstand-tops, and other articles used in hotels for years, have been scarcely injured by wear. In respect also of its peculiarly smooth and perfect surface and fine texture, it is admirably adapted for various ornamental and useful purposes, and grooves, mouldings, &c., are run with great despatch and at small cost by steam power.

Among the articles displayed by Mr. Magnus was a bath-room of large dimensions, good design, and great beauty, wholly manufactured of decorated slate, and in which representations of porphyry, lapis lazuli, giallo antico, and other marbles and rare stones, were introduced with a pleasing and artistic effect. A column and vase of porphyry—a splendid billiard-table, the legs and frame of which, as well as the bed, were of slate; several inlaid table-tops, chimney-pieces, candelabra, &c., served to show the many purposes to which this useful, novel, and interesting invention is applicable.

To this exhibitor the jury had no hesitation in awarding a prize medal, in acknowledgment of his admirable and useful contrivances and applications.

SCAGLIOLA.

The name Scagliola is derived from the Italian, where the process is said to have been invented more than two centuries ago, but it is now very extensively used for decorative purposes in England. The material consists of a coating of plaster mixed with alum and colour into a paste, and afterwards beaten on a prepared surface with fragments of marble, &c. It is greatly used as an excellent and economical means of imitating the finer kinds of marble, the material being as hard as marble, very durable, cold to the touch, and taking a perfect polish. The cement is prepared from the finest gypsum, broken up be-

fore calcining, and afterwards reduced to a fine powder, and passed through a sieve. It is then mixed with aluminous matter, and isinglass, and also with colouring matter, and is afterwards made up with alum; and, as it is generally made use of only where the more beautiful and veined marbles are to be imitated, as many different colours and shades of colour must be mixed up separately as there are in the kind of marble to be represented.

Thus prepared, it is ready to be laid on the surface intended to receive it, which has a rough coating of lime and hair already prepared.

The different colours having to be laid on and mixed by the hand, the work somewhat resembles that of the fresco painter, everything depending on the skill of the operator in imitating the style, beauty, and veining of the original. When the cement is laid on and has hardened, the surface is prepared for polishing by rubbing it with pumice-stone, and cleansing with a wet sponge. It is then polished by rubbing, first with tripoli and charcoal, then with felt dipped in tripoli and oil, and lastly with oil alone. A durable lustre is thus obtained equal to that of marble.

Several new specimens of scagliola were exhibited, of great merit and beauty, by various exhibitors, among whom Messrs. STEVENS and SON, and Messrs. FRANCIS and SONS, received prize medals. The same mark of distinction was also awarded to Mr. DENIS DOLAN, of Manchester, for a Gothic Arch of a new kind of scagliola. This arch included a clustered column with base and capital cast in one piece, the artisan preparing a mould, and pouring into it the outer coat, a marble composition, which is allowed to set before the coarse cement of the interior is added, the latter being so contrived as not to interfere by its expansion with the outer coat, but rather insure the union of the two. This new process of casting scagliola work, and some contrivances in polishing, were noticed by the jury as worthy of consideration.

Messrs. ORSI and ARMIAN exhibited a material called metallic lava, which is a plaster capable of being worked

into a variety of patterns and colours, well adapted by its beauty, durability, and cheapness, for floorings and other decorative purposes; amongst which was a table in the Moorish style, which was intended for the then President of the French Republic. Two different kinds of the metallic lava were exhibited, one of which was white and ornamental, admitting of the application of mosaic work, and the other brown, and peculiarly adapted for covering roofs and terraces, lining tanks, cisterns, fish-ponds, brick walls, stables, &c., where a durable, cheap, and impervious covering is required. Both kinds have stood the test of experience, and are known to be well adapted for the object they are intended for. The composition is patented, and the method of laying down a flooring or terrace without joints is both new and advantageous, insuring the perfect impermeability of the whole to moisture. A prize medal was awarded to these exhibitors.

To MESSRS. DELLA VALLE, BROTHERS, of Leghorn, a prize medal was also awarded, for a new and peculiar manufacture in scagliola, to a certain extent imitative of works in Florentine mosaic, but applied in cases which would be impossible by that process. The objects exhibited consisted of two tables and a vase, all truly inlaid, and having a striking and very brilliant effect. This kind of manufacture differs from ordinary scagliola in the much greater complication of the process, and also in the greater beauty of the result, as the subject included figures and views, which at first would appear hardly possible to be executed in such material, but which showed great labour and skill, and some artistic knowledge in application. One of the objects, a round table, contained a central tableau, surrounded by an azure zone, with several emblematic ornaments. The table itself was of scagliola on a base of marble, each colour composing the ground, and each figure of the central tableau having been first inlaid in a single piece, and then shaded. The lights also were all inlaid, and the general effect was extremely beautiful. It will be seen that the general principle involved, is that of a mix-

ture of fine inlaying without shading. It would appear, however, that the result, although beautiful, is almost too costly to be generally adopted, as the price of the round table referred to, was stated to be £250. The rectangular table, in imitation of pietra dura, and the vase, which was copied from the antique, showed several difficulties incident to the process very successfully overcome. The polish in all the specimens was very good, and entirely natural, no varnish whatever being used.

M. L. ROMOLI exhibited a scagliola candelabrum, in imitation of giallo antico, designed by L. Gruner, Esq., modelled by Ant. Trentanove, and the property of his Royal Highness Prince Albert; and also a table of inlaid scagliola. This exhibitor was honourably mentioned as exhibiting excellent workmanship in the elegant and costly applications of the material he employed. The candelabrum was not altogether pleasing in its effect, but the workmanship was good. The inlaid table was something in the style of those exhibited by the Messrs. Della Valle, but not at all equal either in design or execution. It appeared also to have been manufactured in a somewhat different manner. A cement mosaic of wood and marble was sent from the Cape of Good Hope for exhibition.

An excellent imitation of stone, extremely hard, perfectly non-absorbent, and resisting all atmospheric action, was exhibited by Messrs. RANSOME and PARSONS, of Ipswich. This material is a compound of grains of sand, pebbles, portions of limestone, granite, and similar substances, cemented by a true glass, obtained by dissolving flint in a caustic alkali. Besides the ordinary uses to which stone is applied, a porous variety is manufactured for filter stones, which may be supplied at extremely small cost. The Jury awarded a prize medal to these exhibitors for the improved material they have introduced, and the applications of it they have already made.

CHAPTER XVIII.

TOYS.

THEIR IMPORTANCE—PHILOSOPHICAL AND POLITICAL CHARACTER—AMERICA—AUSTRIA AND ITS EXHIBITORS—BAVARIA—BRITISH COLONIES—FRANCE—TOY TRADE IN PARIS—FRANKFORT—HAMBURG—PRUSSIA—SAXONY—SWITZERLAND—UNITED KINGDOM—VALUE OF TOYS IMPORTED—WURTEMBERG.

IF as the poet tells us, "Men are but children of a larger growth," then we shall need no apology for introducing the subject of "Toys" to the consideration of our readers; especially when we call to mind the remark of one of the most eminent of modern philosophers, viz., that "boys" toys are the most philosophical things in the world; and that of an equally renowned statesman, who, taking another view of their importance, affirms that they are an index to the character of a nation. Now we beg leave to remark, that it is to the toys of the male sex that the observation of the sage philosopher is solely applicable, inasmuch as they are always directed to the more intellectual quality of the masculine understanding, or to its bellicose propensities; whereas the toys contrived for the amusement of the gentler sex are invariably such as minister to the gentler affections of the heart, to tenderness, to love, and the whole range of domestic virtues.

In illustration of the first position, as it is observed in the Report of the Juries, a few examples may be cited. A boy's kite, in the hands of a Franklin and a Romas, has served to identify lightning with electricity, and convey an instructive lesson on the composition of mechanical forces. The pea-shooter not only affords evidence of the elastic force of gases, but also of their economical employment when used expansively. The sucker illustrates the weight of the atmosphere, and its equal pressure in all directions; and the sling, the hoop, and the top, show

the property of centrifugal force: when the top is in rapid motion, it converts for the moment, every spot and bruise on its surface into an elegant zone, and thus also imparts a good lesson in physiological optics. To a reflecting mind toys afford ample food for thought, and they might be made, perhaps, to yield much solid instruction to the child, were it not generally far more wise, for a certain period, at least, to limit its inquiries rather to the discovery of the weakest parts of its plaything.

With regard to the assertion, that toys indicate the genius of a nation, it is evident that, as the natural tendency of children is to imitate the employments of their elders, they will always take the most interest in such toys as will assist them in this propensity, and lead them in their sports to do that which they see those around them doing in earnest. Hence, in countries which are of a military disposition, flags, drums, trumpets, guns, swords, and the accoutrements of soldiers, are much in demand for the pastime of even the youngest boys. In a maritime nation toy-ships will be esteemed, and thus the very pastimes of childhood might be made available in promoting the welfare of such services as the particular state most requires.

The Exhibition, therefore, might have afforded an interesting opportunity to statesmen and philanthropists for studying the diversity of character exemplified by the contributing nations, had they been all as well represented in their toys as they were in their other manufactures. This, however, was far from being the case, many countries, although largely employed in the manufacture of toys, having nearly or altogether neglected sending specimens. AMERICA, for instance, was extremely deficient in her contribution of toys.

AUSTRIA, on the other hand, was well and copiously represented in the toy-trade. From Vienna there were two exhibitors, one of whom sent a great variety of automaton-toys, and the other a general collection of ordinary toys; military accoutrements, guns, and swords, holding a

very prominent position among them, sufficiently indicative of their Haynau and Radetzsky propensities. From Bohemia were sent excellent and very numerous examples of those very beautiful boxes of toys for which it is famous, and which form a large item in the export trade of the country. From the mountains of Tyrol, J. B. PURGER contributed numerous specimens of carved white-wood toys, cheap, and of excellent workmanship. The Widow HALLER and her Son-in-law, of Vienna, obtained a prize medal for a collection of upwards of three hundred children's toys, comprising dolls, dressed and undressed, miniature furniture, shops, drums, flags, swords, guns, lances, shakos, helmets, and other military accoutrements for children, besides the commoner descriptions of mechanical toys, many of which displayed much ingenuity. There were also numerous other sorts of toys in this collection, which were arranged in the manner of a trophy, and formed the largest group in the Exhibition.

KIETAIBL, of Vienna, also received a prize medal for a collection of thirty-nine automaton-toys. These toys, which were all moved by good metallic clock-work, were most ingenious productions, but they appeared to be more expensive than similar manufactures produced in France, with which, unfortunately, the Exhibition afforded no opportunity of comparison. The following were among those deserving of especial notice:—Male and female figures waltzing, the contrivance for effecting the occasional rapid rotation of the German waltz being very ingenious; a pianist, who played, or rather appeared to play, "God save the Queen" and "Rule Britannia;" an elephant carrying a howdah, and four walking Indians carrying a palanquin. This was the only one of detached locomotive figures.

C. A. MULLER and Co., of Oberlentensdorf, Bohemia, obtained honourable mention for nearly two hundred boxes of toys. These boxes were filled with excellent figures, representing men and animals, which were modelled in a sort of papier-mâché, with trees and rocks, the

former being made of wood and the latter of paper. The different series represented hunting-scenes, zoological gardens, herds of cattle, and numerous other groups illustrative of rural domestic life. The truthful delineation of the various animals is a feature deserving of great commendation, as it renders the toys well adapted to afford instruction as well as amusement.

BAVARIA was chiefly remarkable for mechanical and magnetic toys. G. EICHNER, of Nuremberg, received a prize medal for twenty mechanical toys. These articles, which were made of tinned iron-plate, and painted, were quite remarkable for the neatness with which they were finished. They consisted chiefly of carriages with horses, the latter being moved by cranks and levers connected with the wheels. A carriage with four horses, the carriage containing figures representing her Majesty and Prince Albert, was worthy of especial notice.

BRITISH COLONIES.—*British Guiana* sent only a single example. *India*, on the other hand, exhibited a large collection of toys, chiefly from Bengal and Madras. The high antiquity of this manufacture in India will appear from the beautiful Indian drama of *Sacontalá*, written by Calidas, in the first century B.C. "Go, I pray," says an attendant, in Act vii., "to my cottage, where thou wilt find a plaything made for the hermit's child, Sancara; it is a peacock of earthenware, painted with rich colours." Brilliant but rude representations of birds formed the greater part of the display; but there were also some instances of toys which are familiar in England, as the humming-top, the merry-go-round, balancing figures, &c. The collection comprised also several ingenious Malay puzzles, two of which were enclosed in narrow-necked bottles. Figures made in pith were likewise numerous, and were very clever productions. These toys were all such as are in common use in India, on which account they formed a most valuable contribution to the Great Exhibition; but they were not nearly so well made as those of Europe.

FRANCE.—One of the French exhibitors sent two ingenious drawing-room ornaments, containing automaton-birds, which are toys rather for adults than children. Another exhibitor contributed some excellent wax figures for hair-dressers, which are made by processes similar to those employed for producing the best description of dolls, and they were, therefore, enumerated with toys. But although France manufactures enormous quantities of toys of many kinds, only one description of them was sent, and that by a single exhibitor from Paris, who exhibited dressed dolls only. "In that capital alone," according to the *Statistique de l'Industrie à Paris*, says M. Natalis Rondot, "there were, in 1847, no less than 371 manufacturers of children's toys, employing 2,099 workpeople (641 men, 1,345 women, 80 boys, 33 girls), who in that year produced £172,800 worth of goods." The men earn, on an average, 2s. 8d. per day, and the women 1s. 3½d. per day; but some of the men earn 2s. 9½d., according to their skill, or the description of work they are employed on. Many of the masters employ only a single assistant, or work alone, and very few employ more than ten assistants. Thus, of the 371 manufacturers, only 62 employed more than ten; 142 employed from two to ten; 77 employed one; and 90 employed no assistant, but did all the work with their own hands. Competition has, it appears, brought down prices so low that dressed dolls, including a bonnet, are to be bought for *eightpence per dozen*, and undressed composition dolls at *twopence-halfpenny per dozen*. It was to be regretted that none of the very excellent automaton-toys, boxes of games, of kitchen utensils, &c., found a place in the French department, as they are exported from France to a considerable extent. Swords, guns, helmets, and other military accoutrements, are also, as might be expected, produced in large quantities in that country, but are disposed of chiefly for the home-trade. Most of the toy-guns are beautifully made, and are generally furnished with percussion-locks, which will fire off a cap. Conjuring toys, for adults as well as children, ought

most certainly to have been exhibited, as in the manufacture of these articles Paris has no rival.

BONTEMS, of Paris, received a prize medal for his groups of Humming-birds, with clock-work movements, by which the birds were made to hop from one twig to another, at the same time opening their wings, after which they twirl suddenly round, and hop back again exactly in the manner of real birds confined in a cage. There was also an incessant chirping, apparently kept up by the birds, their beaks being made to move. The levers which carried them backwards and forwards were ingeniously concealed in slits formed in the artificial branches. Other birds were represented continually pecking at beetles. The price of one of these groups of automata was £12, and of the other with the clock, £18. Both groups were under glass-shades, and formed singularly pleasing drawing-room ornaments.

M. P. JUMEAU, also of Paris, received a prize medal for dolls' dresses. The dolls on which these dresses were displayed presented no point worthy of commendation, but the dresses themselves were very beautiful productions. Not only were the outer robes accurate representations of the prevailing fashions in ladies' dresses, but the under garments were also in many cases complete fac-similes of those articles of wearing apparel. They might serve as excellent patterns for children to imitate, and thus to acquire the use of the needle, with a knowledge of the arrangement of colours and material; in the latter respect they might, indeed, afford valuable instruction to adults.

FRANKFORT was chiefly remarkable for the contributions of J. V. ALBERT, who exhibited, among philosophical apparatus, dolls, and the Moor's head conjuring-toy, which admits of a knife traversing the neck without severing the head. The mechanism by which this was effected, though simple, it would be difficult to explain without a diagram.

PRUSSIA.—The principal toys in the Prussian department were those of pewter from Berlin, by G. SOHLKE; the principal example being a representation of the review at Windsor, on the occasion of the visit to England of the

Emperor of Russia, who was portrayed among the numerous figures which this well-executed model contained. Besides this specimen, there were several miniature dinner and tea services, also cast in pewter. A. FLEISCHMANN, of Sonnenberg, sent a "Philharmonic Chandelier." This very humorous production represented M. Jullien, in the centre at the top, with the performers of his band seated round the circles of the candelabrum, in a great variety of quaint and expressive attitudes, their features and varied action being portrayed with much skill and humour. The same contributor also exhibited a Comic Chandelier, representing one of the incidents in Swift's celebrated romance, when Gulliver wakes in the country of Lilliput, and finds himself "unable to stir." "As I happened," he continues, "to lie on my back, I found my arms and legs were strongly fastened on each side to the ground, and my hair, which was long and thick, tied down in the same manner. I likewise felt several slender ligatures across my body, from my arm-pits to my thighs." Such an incident afforded ample scope for the imagination of the artist, and he proved himself quite equal to the undertaking. There was much humour evinced in the expression and action of the Lilliputians, some of whom were bold enough to push their inquiries so far as to pry into Gulliver's waistcoat pockets, a piece of temerity which was nigh costing one philosophic-looking individual his life. Others of the natives were, however, far more cautious, and mounted, in fancied security, upon the branches of trees, which Gulliver might have blown down with a breath, where they contented themselves with a more distant view: others, again, preferred trusting to the ground and their own legs, and some were already on the start at the first signs of waking on the part of the man-monster; a few slow, dull-headed individuals, not knowing what was taking place, were climbing up on his body, whilst others were precipitately sliding down; and even the Lilliputian horses seemed to have their pre-sentiment of danger, and were becoming unmanageable.

SAXONY contributed but a few toys and busts made in pewter. Yet, in 1846, there were 697 manufacturers of wooden toys, who employed 1,520 workpeople.

SWITZERLAND, so famous for its carved white-wood toys, did not exhibit any of these articles, and therefore might be considered as unrepresented in this branch of manufacture. M. AUDEMARS, however, exhibited a beautiful little pistol, weighing only half a grain, and so small that it required a microscope to bring out its details. When it was magnified about twenty times linear, all the various parts might be distinctly seen, and they then appeared beautifully formed and perfect in their polish. Every part, indeed, was as complete and perfect as it is to be found in an ordinary percussion-pistol, so that the lock acted when the trigger was pulled. T. F. BAUTTE, of Geneva, received a prize medal for a Paper-weight of gold, the base being ornamented with scenery painted in enamel. From this a stem ascended, and was surmounted with a small casket which opened and closed by means of clock-work. When the cover was turned back, a most beautiful and perfect little bird was discovered, which was apparently singing, and at the same time fluttering its minute wings, and twirling about in different directions. As soon as the song was finished the box closed. The bird was scarcely three quarters of an inch long, yet was most life-like in the details of its construction and its movements, and its warble was perfectly suited in compass to its size. The manufacture of such minute pieces of mechanism is most valuable training for the watchmaker, and they are therefore deserving of encouragement.

UNITED KINGDOM.—Considering the vast quantity of toys manufactured in the United Kingdom, the contributions that were exhibited were very inadequate. The only exhibition of wax dolls that was deserving of notice was one by Augusta Montanari, of Upper Charlotte street, to which a prize medal was awarded. The display of this exhibitor was the most remarkable and beautiful collection of toys in the Great Exhibition. It consisted of a

series of dolls representing all ages, from infancy to womanhood, arranged in several family groups, with suitable and elegant model-furniture. These dolls had the hair, eye-lashes, and eyelids separately inserted in the wax, and were, in other respects, modelled with life-like truthfulness. Much skill was also evinced in the variety of expression which was given to these figures in regard of the ages and stations which they were intended to represent. From the prices of these dolls, however, they were adapted rather for the children of the wealthy than for general sale; since the prices of the undressed dolls were from 10s. to 105s. each; the dressed dolls, which were attired with much taste, were much more expensive, and varied in price according to the richness of the material of which the robes were made. In a small case adjoining that which contained the toys just enumerated, were displayed several rag-dolls, which were very remarkable productions, considering the materials of which they were made. They consisted entirely of textile fabrics, and the dolls, which were intended, and were well adapted for the nursery, were reasonable in price, varying from 6s. 6d. to 30s. per doll, including the dresses. Rocking-horses were exhibited by J. C. DEAR; and H. LUCAS sent an improvement on the garden-horse, which was made to rock by means of the motion of one of the wheel-axes as the horse was dragged along. A few compressible toys were exhibited, and a variety of automaton and other toys, chiefly foreign, were displayed by A. BOUCHET. None of the ordinary strong toys of English manufacture were exhibited, probably on account of the makers of these sorts being generally very poor. For most of the English wooden toys are constructed by chamber-masters, who seldom manufacture goods to order, but, on the contrary, when they have produced a small number, hawk them about from shop to shop, or vend them in the streets. Without capital, and compelled to work almost literally from hand to mouth, they continue to exist only, without any material advance, but making much the same kinds, having the same general

degree of merit, one year after another. That this is no exaggeration, must be conceded by every one who will recal to mind the toys of twenty years since, and mentally contrast them with those of the present day. That the progress has been slow, and requires long intervals for comparison to make it apparent, arises from the fact that all the improvements must be made in the few leisure moments of the workmen, who are compelled to labour many hours each day to gain a livelihood, and who, probably, cannot even afford the time to carry out any suggestions which may be made to them. That the poor workman does, nevertheless, endeavour to improve in his productions, is shown by Mr. Dickens, with touching humour, in *The Cricket on the Hearth*, when Caleb is made to say, "You couldn't have the goodness to let me pinch Boxer's tail, mum, for half a moment, could you?" When surprise is expressed at the question, he thus explains his meaning: "Oh, never mind, mum; he mightn't like it, perhaps. There's a small order just come in for barking-dogs, and I should wish to go as close to nature as I could, for sixpence. That's all. Never mind, mum." Dolls'-houses, shops, brewers' drays, waggons, common horses, the body formed of a sort of skittle with a slice cut off on the under side, and four round pins for the legs, are made in large quantities in England. Spades, wheelbarrows, garden-rollers, garden-rakes, skipping-ropes, caouchoucballs, tops, kites, and similar toys, are also made in great numbers. Wax or composition dolls are made entirely in England, but wooden dolls are imported, as are also papier-mâché dolls' heads, the bodies only being made in this country.

WURTEMBERG.—Immense quantities of toys are manufactured in Wurtemberg, more particularly on the borders of the Black Forest, and are exported to England, America, and other countries. The contributions in the Exhibition comprised most of the kinds which are manufactured in that country; as, for example, mechanical toys by Rock and GRANER, of Biberach, some made of tinned

iron-plate, and others in papier-mâché, comprising carriages with horses, which were moved by the revolving parts by means of cranks and links; a water-mill, to be acted upon by real water; a cascade and fountain, in which, also, real water was to be used; a working-model of a pump; collections of kitchen utensils, and numerous other articles. A prize medal was adjudged to these exhibitors.

The number of exhibitors from all parts was 51; of these there were 12 holders of a prize medal, 2 who obtained honourable mention, and 37 unrewarded.

Having now gone our rounds, and visited nearly all the toy-shops of the several nations who contributed towards furnishing the vast variety of objects of interest exhibited in the Crystal Palace, we will now dismiss the subject, and, opening a fresh chapter, return to the agreeable dissertations of our gifted member of the Institute of France.

CHAPTER XIX.

LETTERS OF M. BLANQUI—*continued.*

LETTER VI.—SPAIN AND TURKEY—FORMER EXCELLENCE OF SPANISH MANUFACTURES—CLOTHS, VALENTIA SILKS—TOLEDO BLADES—KID GLOVES—A DIGRESSION UPON THE FAIR SEX—MINERAL PRODUCE OF SPAIN—TURKISH SPLENDOUR—GREEK MARBLES AND PIGMENTS—TURKISH CARPETS—BURSA SILKS—QUESTION ON THE CORN LAWS—PRAISE OF COBDEN—VISIT TO A FARM IN LANCASHIRE—SMALL AGRICULTURAL STEAM MACHINES—PATRIARCHAL HABITS—ENLIGHTENMENT OF ENGLISH FARMERS—ABOLITION OF PROTECTION—ABUSES IN THE CUSTOM-HOUSE.

LET us in this letter devote ourselves to Spain and Turkey, at the two extremities of Europe. They are in

close proximity at the Exhibition, and resemble each other through their decidedly progressing tendency during the last few years. Turkey and Spain are not, as is generally believed, worn-out countries; on the contrary, they are still in their infancy. The real spirit of progress makes in reality more rapid strides here than in other places, which claim to be enlightenment itself, and which oftener spread conflagration than civilization. I have visited Spain and Turkey a few years ago; I met these nations here again, more advanced than ever in the path which had commenced to open before them; and their products merit serious attention, even when placed in juxtaposition with those of the great industrial regions which at the present moment absorb the attention of the world.

Spain has for a long period been a brilliant arena in which the manufacturing arts have shone with a splendour, which is striving to revive. Her manufactories of arms, of silks, of woollen cloths, of gold and silversmith's work, of carpets, have occupied an honourable rank in Europe. Her typography was once greatly renowned. Her workmen possessed a rare merit—that of being original without degenerating into the false taste, which for a while ran through their literature. They have borrowed from Arabian traditions a multitude of useful processes and of charming forms, which they have appropriated with a moderation and an intelligence suitable to their times. They have never been insipid or vulgar, even when the flame of their genius seemed likely to be extinguished beneath the passion of fanaticism. They fell with pride or with sadness, as Castilians are wont to fall, ever ready to rise again, and ever worthy of respect.

Their exhibition in London is not on a very large scale. They have shown themselves almost as indifferent here as they habitually are in their national exhibitions, where they have always appeared in very limited numbers,—whether it be that these new festivals of the material world excite less their enthusiasm than those they were

wont to celebrate in their temples, or that the distance may have frightened them in consequence of the bad state of their roads. I have already said that they had sent more raw materials than manufactured goods; I am still of this opinion, and I may add that they have done right. Spain is above all a land rich in natural products; and I shall not be doing her any great injustice in stating that her mines, her marbles, her metals, will in the long run tend more to her honour and profit than her woollen and cotton manufactures. But, for all that, the efforts which she is making to enter upon the path of manufacturing labour, at the keenest moment of the struggle which has been entered upon between the European nations, are not the less worthy of honour.

The productions exhibited by Spain are of very good quality. We have particularly noticed blue and black woollen cloths—especially black—which are manufactured from the best wools of the country, and which can sustain the comparison with the corresponding qualities of foreign manufacture. The silk goods of Valentia have likewise maintained their good name, but they leave a good deal to be desired in point of finish, patterns, and even colours. A trial of black lace embroidered with colours has been less happy: this may be an innovation destined to obtain some success in the colonies. Fine and good samples of sail and cable cloths bear testimony to the resumption of the spinning of yarn, which possesses great elements of prosperity in that country.

The Spaniards have exhibited few fire-arms, but what there are, are principally from the manufactory at Toledo, the land of good daggers and flexible swords, which enter the body with the pliancy of the serpent. Some pistol cases, and two cannons—one of bronze, the other of iron—the latter, it is said, forged with the hammer by the Carlists during the civil war—complete their collection of destructive implements, which suffices to show of what they are capable in this description of article. Pray to Heaven that they may use their iron for other purposes!

This iron is really excellent, and may vie with that of Sweden. There are also in the Spanish exhibition very fine samples of their kid skins for gloves, which I consider to be the softest in the world, and the most worthy to protect ladies' hands. Why have we not likewise in the Spanish gallery some of their admirable women—of those who excite the enthusiasm of great deeds? The fair visitors of the North are so cold, so formal; they look as if they came out of a Presbyterian chapel! Pardon me this digression, Sir, for the ladies are here in the majority, and one would almost believe that it is out of pure gallantry to them that Englishmen have got up the Exhibition. They are indefatigable. They eat like ogres, at all the refreshment stalls. The detestable fashion of *crinoline*, and even of baskets, which has seized upon them, gives them a really fantastic size, which every day diminishes the space left to move about in. It is even something strange and curious to see this exhibition within the Exhibition; but it proves at least that here the women, through their instruction, take a real share in the progress of industry, and that they seriously occupy themselves about the interests and labours of their husbands.

Thus we may see them eagerly grouped, like manufacturers or *savans*, around raw materials arranged with much order and simplicity in the Spanish gallery. They admire the wools of Estremadura, the silks of Valentia, the lead ores, the marbles, and, above all, the preserved fruits of Malaga. This collection is exceedingly beautiful. It is by means of her inexhaustible mineral wealth that Spain will regain her fortune. She will find within her own bowels wherewithal to feed her children. Mineral wealth is now-a-days the starting-point of all others. When a country possesses iron, lead, sulphur, and even, if I may judge from very fine samples sent by Galicia, tin and copper, it possesses the essential basis of all manufactures. I hope that the glorious land of Spain may not seek elsewhere, to the detriment of her natural fortune, an artificial fortune based on tariffs and prohibitions, which

would not restore her manufactures, but which would restore smuggling, to say nothing of pauperism and its attendant train of evils. We may hope the same for Turkey. Turkey now aspires, with much honour to herself, to be ranked among the civilised nations. The young Sultan is endeavouring honestly to follow the footsteps of his father, and he has found in Rechid-Pacha an enlightened counsellor and a determined auxiliary. It is indisputably to their powerful intervention that the success of the Turkish exhibition is attributable. It is really a remarkable one; and even after having visited the celebrated bazaars of Adrianople, of Constantinople, and of Smyrna, I could hardly have expected to find so much diversity of richness and taste as in the articles which have been sent by the Levant. As I pass, I greet the small exhibition of Greece, where we have recognised the classic marbles of Paros, and the honey of Mount Hymet. The posterity of Homer and Pericles have since cultivated the grapes of Corinth, and now cultivate sponges and meerschaum, the latter—forgive it them, O ye gods!—serving to make pipes! As far as I am concerned, I devote all smokers to the infernal gods. Greece has sent some beautiful black marbles and madders equal to those of Cyprus. Gall nuts and dyers' weeds will ere long become elements of wealth for that country, the friend of France, which has always had our sympathy, and whose progress has probably contributed not a little to that of its former masters.

In giving you an account of the Turkish exhibition, I must commence by saying I have been greatly surprised only to find vulgar carpets, strong and almost unchangeable as are nearly all they make, but of an unhappy choice. The Turkish carpets are probably the articles most adapted for barter which come from that country, and care should have been taken only to exhibit those most remarkable in point of pattern and colour. I should not omit to state that on their importation into France they pay exorbitant duties, and that but for this improper protection, these precious fabrics, the consumption of which is almost nil,

and which ought to be immense, would long since have come into very extended use in France. It is the importation of Cashmere shawls which has led to the extensive use of French shawls; it is the importation of Turkish carpets which will extend amongst us the use of French carpets.

The Turks have arranged their exhibition with much art. It resembles a beautiful bazaar, lighter and more coquettish than their own, in which the goods are displayed after the Eastern fashion. I will not allude to some attempts at printed calicoes, which must not be encouraged, for they are hideous and unpardonable, owing to the advanced state of this branch of industry in less industrial countries; but their light silk goods, their stuffs embroidered with gold, are worthy of attention, even when compared with the analogous productions of British India. The Turks will do much better to devote themselves entirely to the production of raw materials, and above all, of dye-stuffs. Their Bursa silks have a reputation; their madders, their kermes, their sesamums, their rice, their opium, their copper, their skins, will become articles daily more sought after, and with which the industry of Europe cannot dispense. It is useful for them as well as to ourselves, to tell them that they would take a wrong course in neglecting their natural productions, for which they have a certain market, in the pursuit of a more than doubtful manufacturing progress.

It is such lessons as these that the Universal Exhibition will teach to many people. It will prevent capital from flowing to industrial Utopiæ, to divert them to the safer grounds of agriculture and raw materials. If we wished all to manufacture anything at any price, we should run the risk of wanting the most indispensable raw materials necessary for production, and to perish either through insufficiency or abundance. The English are at present more dependent upon American cotton than upon their own iron. The most characteristic fact of our civilization is the growth of that mutual dependence of nations which is

the soundest guarantee of peace. The Turks may judge from the wants which the Exhibition will have revealed to them, the direction which they should give to their reviving industry.

LETTER VII.

I ran away for a few days from the attractions of the Exhibition to go and study on the spot certain questions to which the economical reforms which have been accomplished in this country impart at the present moment peculiar interest. I was desirous of seeing whether the great display of industrial power which England is making in London at the present moment, and the path of commercial freedom on which she has entered since the memorable league of Cobden, were real or delusive symptoms of her social progress. It appeared to me that it was the duty of a political economist not to trust to appearances only, but to examine for himself whether the English people had really been the gainers by all the commercial reforms which have been the result of so fierce and determined a struggle. Has the abolition of the corn-laws been beneficial or injurious to the cultivators of the soil? Have the workmen gained in prosperity what the agriculturists pretend to have lost? Is free-trade likely to be permanent? What are likely to be its ultimate results?

These are grave questions at the present time—I might say questions of life and death—since upon their solution depends the food of the people, and the tranquillity or disturbance of the state. What a bitter disappointment, besides, to us, if we must place amongst the rank of chimeras and utopiæ the lively hopes which have encouraged us in the war which we wage against the prohibitionists—a thankless strife, in which we have so often to encounter the hatred of some, the indifference of others. Happily, the moment is at hand when that sovereign arbiter called experience will pronounce—indeed, we may say, that that moment has already arrived in England.

You shall judge of it, and may your readers give to this important letter all the attention which it merits. The following are the simple facts: some years ago, several English manufacturers, struck by the distress of the labouring classes, endeavoured to trace its causes, and speedily discovered that the taxes on raw materials and on alimentary substances were the principal sources of this distress. Taxation in every shape, and particularly in that of the import duty on corn, deprived workmen of a portion of their wages. It was evident that the state and the great landed proprietors divided the amount, entirely defrayed by the industrial classes, between them. Since that period, Mr. Cobden and his friends—for it is they who have conducted this religious crusade to a successful issue—did not say to the operatives, "Let us upset the government and the institutions of our country—let us drive the Queen from her throne, and let us threaten property;" they quietly said, "Your distress is attributable to the corn-laws; let us repeal the corn-laws:" and the corn-laws were repealed. When they had perceived that this abolition would result in a great increase of the prosperity of the country, the promoters of the reform, convinced that the surest means of giving a fresh impetus to British industry, was to ensure the supply of raw materials at the lowest prices, set about with renewed vigour to propagate the happy idea, and to ensure its triumph: it also, in its turn, has triumphed. Then came the turn of the navigation-laws, whose object was to maintain for the English flag the monopoly of conveyance and of maritime supremacy. These laws have likewise disappeared from the statute book. At present, Englishmen may purchase their grain wherever they please, without paying duty; and they receive raw materials from every part of the globe without taxes or privilege of flag.

Assuredly never was economical reform more radical than this. It attacked at one fell swoop landed property in its income, the state in its financial resources, and the

national susceptibility in its most ticklish points. All this has been accomplished, without firing a shot, by the sole power of right and reason; and by perseverance and patience—those two great virtues, alas! so rare among us. But a fierce resistance during the struggle, and a still stronger reaction after success, were things to be expected. This reaction still continues, particularly amongst the agricultural interest; and at the present moment it is complicated by the extreme depreciation in the price of corn. It was, therefore, of great importance to go to the fountain-head, to study this new fact worthy of attention. I went, in company with my learned friend, Michael Chevelier, professor of political economy in the college of France, to one of the most remarkable farms in Lancashire, managed by one of the most distinguished farmers in England. We have found this able agriculturalist firm as a rock in his belief of the future prosperity of agriculture. He only considered the present low price of grain as accidental, owing either to the general abundance of corn throughout Europe, or to other transient causes foreign to the new commercial legislation. He admitted that this reform compelled him to modify his cultivation; and that he had discovered a new mine of wealth in the multiplication of pigs, of which we counted between four and five hundred on his farm. Instead of producing corn, Mr. W—— produced meat; and he did not doubt that the abolition of the corn-laws would open the eyes of a great number of farmers who had slept for so many years on the pillow of protection.

Here the cultivators of the soil might see the difference between their venerable immoveableness and the application of science to agriculture. I had been very much struck, in the Great Industrial Exhibition, with the singular variety of the English agricultural implements, the greater part of which are even unknown to us by name in France. My colleague and myself had had often explained to us to what uses, for instance, might be devoted pretty small agricultural steam-engines of five or six

horse-power. We know it now. During the whole of our route we have seen several of these machines in the farm-yards of the villages. They serve to thrash the corn, to chop the grass for the cattle; they are used for ploughing, by being stationed in various parts of the fields, from which they put the ploughs in motion. Mr. W—— does not despair of applying them to a number of other uses; and he was kind enough to put in motion before us two models of machines intended to weed and spade by steam. The latter is really exceedingly ingenious: it is impossible to imitate with greater precision the movement of a man's arms. "Before long," said Mr. W——, "all England will be spaded and raked like my garden."

In order to understand the justness and the probable realisation of this idea, it suffices to observe with some attention the manners of the people of this country. The farmer whose hospitality we enjoyed possesses three thousand acres of land, and lives with a simplicity which is not without grandeur. He lives on the land which he cultivates, he looks after it, and animates all with his example. He causes the smallest portion of solid or liquid manure to be collected with the utmost care. He visits the styes of his numerous pigs, looks after their health, and attends to all their wants. They are his California. Fifteen months suffice to see these useful animals, which yield enormous profits to his farm, born and die. We were greatly surprised at meal-times to see all the male and female domestics coming into the room carrying a wooden bench, which was placed facing the arm-chair of the master of the house and his family. Mr. W——, seated in his arm-chair, then opened the Bible, out of which some chapter was read, and then all kneeled together. After prayer the domestics took their form with them, and the family commenced their meal. Every one here respects his fellow-man—the masters their servants, and the servants their masters. There is neither familiarity nor haughtiness. On all hands there is little talk, but a great deal of business.

Mr. W—— conducted us across the fields over all his grounds. Would that your agricultural friends could make this journey! Here they would see what agriculture is; what an admirable, methodical, and analytical art, replete with charms, agriculture is; how the soil is kept free from extreme wet and extreme drought by means of drainage; how the pulverable manures, such as guano, are deposited by a machine around each grain of corn which is sown in the ground; how the fodder is pressed to avoid fermentation; how hay and straw are mixed, &c. &c. Over immense surfaces of ground, all the plots devoted to special culture are enclosed in; everywhere there are small wooden or iron barriers, well closed by means of ingenious and economical latches; double-sided mangers, racks, stables, cattle-sheds, and dairies, of admirable cleanliness, the windows of which are cleaned every day. People *condescend* to reside here, sir; they know how to draw profit and happiness from the fields, and the fields are not unjust. The truth is, with us Paris is everything; we are nailed to it by the two most irresistible influences—those of politics and of women—may heaven forgive them! But I trust there are yet good days in store for agriculture, and that the republic will render the residence of towns so hateful, that we shall be compelled to go for peace and soft emotions to the country.

Another trait of English manners is, that the greater part of the men who are engaged in agricultural pursuits are generally instructed and enlightened in all matters of political economy. Mr. W—— possesses not only a rare collection of agricultural implements, but also an excellent library. All the farmers in this country are acquainted with the progress of chemistry or botany, of mechanical science, and of horticulture. They will therefore have less difficulty in emerging from the torpor in which the corn-laws have plunged them, inasmuch as they will only have to bring forward in the present reign of competition that knowledge which, under the past reign

of protection, they suffered too often to slumber. The inevitable results of the abolition of the corn-laws would appear to be further applications of science to agriculture, or a diminution in the rents of the landed proprietors. That portion of the rents, which was levied by means of the corn-law upon the wages of the operative, will be reduced, to the benefit of the farmer; and perhaps the latter, discovering new processes to augment the profits derived from the land, will be able to pay the same rent as heretofore. In that case, nobody would be a loser by the change, and the benefits of cheap living would be opened to the working classes without diminution in the incomes of the landlords. Mr. W—— expressed the idea ingeniously by saying, "We shall turn our land and our brains to better account, that's all; and it is free-trade which will have accomplished the prodigies." Thus, experience proves every day that the abolition of the bread tax will only further have developed the productive powers of this country. The working classes who have become larger consumers, owing to their ability of living cheaply, react on agricultural productions by larger demands. They consume more meat, cheese, milk, butter, vegetables, simply for the reason that they can buy their bread cheaper. In future, only a portion of the corn will be drawn from foreign sources, in exchange for English goods, and England will supply the remainder. She will manufacture more meat and less grain. Do not laugh at these vulgar expressions and material details—humanity *lives upon good soup, and not on fine words*, even according to Molière, and the prohibitionists would be only to glad to put us on bread and water, if they found it to their interest to do so.

You may, therefore, consider it as a certainty that the cause of freedom of commerce is permanently won in England, and that all the attempts of the protectionist system will not prevail against it. There remains doubtless some abuses to be destroyed in the customs' department; and it is a notorious fact that the vexatious habits

of this regime have survived the liberal modifications of the new English commercial policy; but the house of commons has appointed a committee of inquiry to put an end to them, and I have been given to understand, by the chairman of this committee himself, that this inquiry will be conducted in the most liberal spirit. This scandalous reign of espionage, of searching the person, of breaking open packages, of impertinent curiosity, is well nigh drawing to a close. These acts of plunder, known under the name of pre-emption, of seizures, of rewards to informers, will ere long cease to dishonour the legislation of nations, to go and join all other seignorial rights. It is time that a vessel running on our coast—that a father returning to his family—that a merchant who brings wealth to his country—shall cease to be received by armed tax-gatherers, who are permitted to pry into the most secret parts of our baggage. Only think, sir, that we suffer these outrages for such a length of time—not in the interest of the state, which has a right to all our sacrifices, but simply for the purpose of ensuring to some bigoted manufacturers the faculty of selling us their goods without competition.

There is only one opinion in Liverpool against these remains of commercial barbarism, and nevertheless the custom-house regulations are less vexatious there than in our ports. The ardent life of commerce will no longer tolerate these trammels of the past. There arrive at Liverpool about a hundred vessels daily from all parts of the globe; there are always five or six hundred loading. The railways send forth with the rapidity of lightning in every direction trains loaded with passengers, and I close this letter at a distance of ninety leagues from London, where I should be in five hours did I not intend to stop a day at Manchester. What can be opposed to such torrents? The present customs system will disappear; not because it is absurd, but because it is impossible. My honourable colleague of the Institute, M. Léon Faucher, Minister of the Interior, has first delivered us from the tyranny of passports. Should he become minister of

finance, he will have a fine opportunity to put an end to the custom-house abuses. It would suffice to make his name go down gloriously to posterity.

CHAPTER XX.

FURS AND FEATHERS.

REMARKS ON DRESS—ANTIQUITY OF FUR-CLOTHING—NICHOLAY AND SON—ORIGIN OF THE FUR-TRADE—HUDSON'S BAY COMPANY—ITS VAST TERRITORY—THE NORTH-WEST TRADER—THE INDIAN HUNTER—GREAT VARIETY OF FUR-CLAD ANIMALS—NUMBER OF EXHIBITORS OF FURS—NORTH AMERICA—THE ARCTIC REGIONS—EUROPEAN FURS—TROPICAL SPECIMENS—FEATHERS—MESSRS. ADCOCK AND CO.—OSTRICH FEATHERS—THE MARABOUT STORK—THE GREBE—EIDER-DOWN—SWAN'S-DOWN—GOOSE-DOWN—THE DUCK-BILLED PLATYPUS—CAPE BIRDS—HERON PLUMES—BIRD OF PARADISE FEATHERS.

PERSONAL attire, or dress, has always been held in high estimation in all countries, and among all classes of people. From the rude savage to the polished denizen of the modern drawing-room, all own its influence, and all pay obedience to its laws. Nature herself, indeed, furnishes us with an excuse for doing so, in the gay and rich attire which she has so lavishly bestowed upon the various objects of her care, "the lilies toil not, neither do they spin;" the birds of the air and the beasts of the field receive from the same bounteous hand their rich and appropriate clothing. Why therefore should not man imitate the example before him, and in his dress endeavour to unite the qualities of grace and beauty with those of mere utility and convenience? It is only when the love of dress amounts to a passion, as we are afraid it sometimes does in the bosoms of the fairer portion of our race, the gentle partners of our fire-sides, that we would

deprecate its influence. Pope presents us with a glowing description of one of these votaries of fashion, in his celebrated *Rape of the Lock*, which we shall quote for the edification, but by no means for the imitation of our fair readers—

“And now unveiled the toilet stands displayed,
Each silver vase in mystic order laid.
First robed in white, the nymph intent, adores,
With head uncovered, the cosmetic powers.
A heavenly image in the glass appears,—
To that she bends, to that her eyes she rears,
Th’ inferior priestess, at her altar’s side,
Trembling, begins the sacred rites of pride :
Unnumbered treasures ope at once, and here
The various offerings of the world appear ;
From each she nicely culls with curious toil,
And decks the goddess with the glittering spoil.
This casket India’s glowing gems unlocks,
And all Arabia breathes from yonder box.”

But we must terminate our exordium, and introduce our readers to the subject-matter of the present chapter, which, as stated at the commencement, is relative to fur, and chiefly as an article of dress.

As an article of clothing, the fur of animals was naturally and necessarily the very earliest in use among mankind ; and we find that our first parents, when driven out of Paradise, had garments made of the skins of beasts. We next read of their use in the adorning of the holy temple ; the goat skins dyed red, and the badger skins being particularly pointed out. The Persians, Greeks, and Romans were familiar with the use of furs as articles of clothing and trophies of victory, and imputed in many instances similar customs and usages to their numerous fabled deities and heroes. Equally ancient was the use of the dressed skins of animals amongst the Assyrians, as is proved by the representations on the recently-discovered interesting and valuable sculptures lately rescued from oblivion, and bringing again to light the records of a great nation and mighty people, whose history otherwise might

have been lost to us for ever. When we refer to more modern times, we find that the regal miniver encircles the royal diadem and composes the mantle by which the sovereign on state occasions is distinguished, and that the various degrees in rank of our nobility are also known by the heraldic arrangements of the ermine worn by them on their robes of state. In like manner the sable is used, according to the rank, to adorn the official dresses of our civic magistrates. The ermine, again, emblem in the olden time of purity, is worn by the judges, and was, possibly for that reason, chosen as the adornment of their magisterial vestments. The rude Laplander, the uncultivated Esquimaux, and the wild Indian, in their several remote and inhospitable regions, have several marks of distinction peculiar to themselves.

Perhaps the most attractive, and certainly the most artistically arranged collection of furs in the Great Exhibition was that shown by the Messrs. Nicholay and Son, of Oxford-street. Messrs. Nicholay exhibited specimens of almost every variety of fur adapted to male and female habiliment. The beautiful lustre of the seal-skin, dyed and undyed, was shown to advantage in mantles, *par-dessus*, children's dresses, bonnets, coats, and waistcoats—the latter invaluable for winter wear, as a preservation against bronchial affections. In the case of these latter, as in that of the buffalo-skin railway-wrapper, great durability compensates for a trifling increased outlay in the first instance. The historical miniver may be seen in a great variety of muffs and tippets, with spots made with the paws of the Astracan lamb, to suit the requirements of modern taste. A very curious article in this valuable collection was a coat from the hide of a Tartar colt, but so carefully dressed as to be as soft as seal-skin, and, from the fineness and density of the hair, completely impervious to wet. It is not a little curious to find the skin in which a wild Tartar colt once scampered over his native steppes serving, perhaps, as a paletot to some tranquil commercial gentleman economically travelling in an English second-

class railway-carriage. The beaver was also exhibited in a great variety of ladies' articles. Formerly the use of this fur in the manufacture of hats rendered it so dear, as to make it quite unapproachable for any other purpose; but since the great "gossamer" revolution, the market has become much more easy, and the manufacture has been in a great measure handed over to the furrier. It dresses beautifully, has fine colour and lustre, and the density of the pile gives it a very rich and costly appearance. But it is not only the skins of wild animals alone that the furrier applies to the purposes of his trade. In this collection were exhibited some beautiful articles in the skin of the grebe, a wild duck found near the lake of Geneva, and a very costly and beautiful suit made from the feathers of the egret, a small bird, and so rare and expensive as only to be attainable by royal wearers. This costly collection is completed by various specimens of wolves, tigers, &c., carefully stuffed, and adding greatly to the attractiveness of the stand. Her Majesty visited Mr. Nicholay's stand more than once, and commended many of the articles. A visit to that portion of the nave in which the British fur-trade arranged its wares must have convinced the most sceptical that our English furriers, having the command of the best market for the selection of skins, have also attained the greatest perfection in dressing these costly and beautiful articles of costume. It may be necessary to remind the reader, that the greater portion of the more costly furs is supplied by the Hudson's Bay Company and the North American Company, both of which have their hunting-grounds in the most northern part of the American continent, and who bring the produce to London, where, on sales occurring twice or three times a-year, the furriers of the whole world, Russia among the rest, supply themselves; and it is but reasonable to suppose that the London furriers, residing on the spot, and having the wealthiest people in the world for their customers, would not be behind any in the preparation of articles of the greatest costliness and beauty. To

prove that such is actually the fact, it is only necessary to examine the specimens of the skins of almost every animal, from the royal lion and Bengal tiger down to the domestic rabbit, from which the fur section in the Crystal Palace was profusely filled. The greatest show in quantity, and surpassed by none in quality, was that of Messrs. Nicholay, who hung the whole front of the gallery with the skins of lions, tigers, bears, wolves, and foxes, dressed to a beautiful softness, and adapted to a modern exigency by being formed into open carriage, sleigh, and railway wrappers. It appears that they surpass all other articles of that description in warmth and comfort, and, although considerably more expensive than woollen wrappers in the first instance, yet, from their great durability, they become eventually the most economical wrapper for any one who travels much by open carriage or rail.

Several specimens of the royal ermine were to be found in Messrs. Nicholay's stall. In the reign of Edward III. ermine and letice were forbidden to be worn by civilians, and other expensive furs were permitted only to knights and ladies whose incomes exceeded four hundred marks annually. Richard III. and his Queen Anne rode from the Tower to Westminster in robes of velvet, faced with ermine, on the day of their coronation.

The fur trade between Europe and America commenced early in the seventeenth century, and was carried on by the early French emigrants. Quebec and Montreal were at first trading posts. The trade was then, as now, a barter of guns, cloth, ammunition, &c., for the beaver and other furs collected by the natives, and was effected by the intervention of the *voyageurs, engagés, or coureurs des bois*. These men carried burdens on their backs to the Indian camps, and exchanged their wares for peltries, with which they returned in the same manner. Shortly after the discovery of the Mississippi, permanent houses, and in many places stockade forts, were built, and men of capital engaged in the trade. Detroit, Mackinac, and Green Bay, were settled in this manner.

In 1670, shortly after the restoration of Charles II., that monarch granted to Prince Rupert and others, a charter, empowering them to trade, exclusively, with the aborigines in and about Hudson's Bay. A company, then and after called the Hudson's Bay Company, was formed in consequence. The trade was then more lucrative than at present. In the winter of 1783-4, another company was formed at Montreal, called the North-West Fur Company, which disputed the right of the Hudson's Bay, and actively opposed it. The Earl of Selkirk was at that time at the head of the Hudson's Bay, and conceived the plan of planting a colony on the Red River of Lake Winnipeg. Of this colony the North-West Company was suspicious. In consequence of this, and the evil feelings naturally growing out of a contrariety of interest, a war ensued between the servants of the parties, and a loose was given to outrage and barbarity. Wearied, at last, in 1821 the companies united, and are now known by the name of the Hudson's Bay Fur Company. The colony established by Lord Selkirk soon broke up, the settlers going to the United States. Few are aware of the extent of the territory of the Hudson's Bay Company. It covers one-eighth of the habitable globe. Russia comes next in order of importance in this respect, but the race of animals is different.

Of all who have traded with the aborigines, the French were the most popular and successful. They did, and still do, conform to the manners and feelings of the Indians better than the English and Americans ever could. Most of the persons now engaged in the fur trade, in the region north of the Missouri, are French; and they are much esteemed by the natives, with whom they frequently intermarry. The male offspring of these alliances are commonly employed as interpreters, *engagés*, &c. They are handsome, athletic men. Mixing the blood seems to improve the races. The Indian trade on the great lakes and the Upper Mississippi, with its branches, has long been in possession of the North American Fur Company, the prin-

principal directors of which are in the city of New York. In the year 1822 a new company, entitled the Columbian Fur Company, was organised to trade on the St. Peter's and Mississippi. It was projected by three individuals, who had been thrown out of employment by the union of the Hudson's Bay and North-west, as before-mentioned. Its operations soon extended to the Missouri, whither its members went from the sources of the St. Peter's, with carts and waggons, drawn by dogs. When it had, after three years' opposition, obtained a secure footing in the country, it joined with the North American. There was another company on the Missouri at the same time. Furs were also obtained from the Upper Missouri and the Rocky Mountains as follows: Large bodies of men (under the pretence of trading with Indians, to avoid the provisions of the law,) were sent from St. Louis, provided with traps, guns, and all things necessary to hunters and trappers. They travelled in bodies of from 50 to 200, by way of security against the attacks of the savages, till they arrived at the place of their destination, when they separated, and pursued the fur-clad animals singly, or in small parties. When their object was effected, they assembled with their peltry, and descended the Missouri. They did not always invade the privileges of the natives with impunity, but sometimes suffered severely in life and property. This system still continues, and its operatives form a distinct class in the state of Missouri. The articles used in the Indian trade are chiefly these: coarse blue and red cloth and fine scarlet, guns, knives, blankets, traps, coarse cottons, powder and ball, hoes, hatchets, beads, vermillion, ribbons, kettles, &c.

The course of a trader in the North-west is this: He starts from Michilimackinac, or St. Louis, late in the summer, with a Mackinac boat, laden with goods. He takes with him an interpreter, commonly a half breed, and four or five *engagés*. On his arrival at his wintering ground, his men build a store for the goods, an apartment for him, and another for themselves. These buildings are

of rough logs, plastered with mud, and roofed with ash or linden slabs. The chimneys are of clay. Though rude in appearance, there is much comfort in them. This done, the trader gives a great portion of his merchandise to the Indians on credit. It is expected that the debtor will pay in the following spring, though, as many neglect this part of the business, the trader is compelled to rate his goods very high. Thus the honest pay for the dishonest. Ardent spirits were never much used among the remote tribes. It is only on the frontier, in the immediate vicinity of the white settlers, that the Indians get enough to do them physical injury, though in the interior the traders, in the heat of opposition, employ strong liquors to induce the savages to commit outrage, or to defraud their creditors. By this means the moral principle of the aborigines is overcome, and often destroyed. Spirit is commonly introduced into their country in the form of high wines, they being less bulky, and easier of transportation than liquors of lower proof. Indians, after having once tasted, become extravagantly fond of them, and will make any sacrifice, or commit any crime, to obtain them.

Those Indians who have substituted articles of European manufacture, for their primitive arms and vestments, are wholly dependent on the whites for the means of life, and an embargo on the trade is the greatest evil that can befall them. It is not going too far to say that the fur trade demoralises all engaged in it. The way in which it operates on the Indians has been already partially explained. As to the traders, they are, generally, ignorant men, in whose breasts interest overcomes religion and morals. As they are beyond the reach of the law (at least in the remote regions), they disregard it, and often commit or instigate actions that they would blush to avow in civilised society. In consequence of the fur trade, the buffalo has receded hundreds of miles beyond his former haunts. Formerly, an Indian killed a buffalo, made garments of the skin, and fed on the flesh while it lasted. Now, he finds that a blanket is lighter and more con-

venient than the buffalo robe, and kills two or three animals, with whose skins he may purchase it. To procure a gun, he must kill ten. The same causes operates to destroy the other animals. Some few tribes, the Ottaways, for example, hunt on the different parts of their domains alternately, and so preserve the game. But by far the greater part of the aborigines have no such regulation. The fur-clad animals are now to be found in abundance only in the far north, where the rigour of the climate and the difficulty of transportation prevent the free access of the traders, and on the Upper Missouri, and towards the Rocky Mountains.

The first proposal as to the exhibition of furs was, that it should be a joint affair amongst the merchants, wholesale dealers, and retailers—a shape in which (although four of the leading houses in the trade contributed to the great case in the centre of the western nave, which went by the name of the Fur Trophy) the project did not get carried out; the wholesale dealers at first hanging back, under the impression that though furs might be shown of every class, and in every stage of finish, they scarce sufficiently formed an article of manufacture for exhibition: finally, however, nearly all dropped in, it being felt that a branch of trade occupying so large an amount of capital, and employing such a number of hands, should be fairly represented; and, therefore, in the wholesale trade, Messrs. George Smith and Sons, of Watling-street; Robert Clark and Sons, Cheapside; Bevingtons and Morris, King William-street; Lutze and Co., King Edward-street; Myer and Co., Bow-lane; and George Ellis, Fore-street; and in the retail, Nicholay and Son, Oxford-street; R. Drake, Piccadilly; Ince and Son, Oxford-street, became exhibitors in the common case or in spaces of their own.

The skins and furs from the Arctic regions, sent by the Hudson's Bay Company, selected from their importation of 1851, and prepared and arranged by Messrs. J. A. Nicholay and Son, her Majesty's furriers, were of great value, beauty, and interest. The groups of the varieties of foxes

included the black, silver, cross, red, blue, white, and kitt. The black and silver fox is the most valuable of this tribe—a single skin bringing from ten to forty guineas; they are generally purchased for the Russian and Chinese markets, being highly prized in those countries. The cross and red fox are used by the Chinese, Greeks, Persians, &c., for cloak linings and for trimming their dresses. The white and blue fox are used in this and other countries for ladies' wear. In the sumptuary laws passed in the reign of Henry III. the fox is named, with other furs, as being then in use. It has been stated that the fox in the Arctic regions changes the colour of its fur with the change of the seasons. Such however is, we believe, not the case, with the exception of the white fox, which is in winter a pure white, and in summer of a greyish tint. Among other groups shown were beautiful specimens of the otter (*Lutra Canadensis*). The Hudson's Bay, North American, and European otters are chiefly exported for the use of the Russians, Chinese, and Greeks, for caps, collars, trimmings, robes, &c. It may not be uninteresting to state, that upwards of 500 otters, the produce of this country alone, were exported during the last year.

Near to these was a beautiful and interesting group of beavers (*Castor Americanus*). The beaver, in former years, was one of the Hudson's Bay Company's most valuable productions; but since its use has been almost entirely discontinued in the manufacture of hats, it has lost much of its value. Experiments have, however, been made, and are progressing satisfactorily, to adapt its fine and silky wool to weaving purposes. For ladies' wear, a most beautiful fur has been the result of preparing the beaver by a new process, after which the surface is cut by an ingenious and costly machine. It is exported in its prepared state for the use of the higher classes in Europe and the East. The rich white wool from the under part of the beaver brings at the present time a very high price, and is, we believe, largely exported to France, where it is manufactured into a beautiful description of bonnets.

Passing from the beavers, we came to two groups, one of the lynx (*felis Canadensis*), the other of the lynx cat (*felis rufa*), both of which, when dyed, were formerly much used. Their rich, silky, and glossy appearance justly caused them to be great favourites; but the caprice of fashion at length banished them from this country. They are, however, still dyed, prepared, and exported in large numbers for the American market, where they are much admired. In its natural state the fur is a greyish-white, with dark spots, and it is much used by the Chinese, Greeks, Persians, and others, for cloaks, linings, &c., for which purposes it is very appropriate, being exceedingly warm, soft, and light. The lynx of the present day is the fur formerly called the "lucern."

We had next groups of the wolf (*canis occidentalis*); of the fisher (*mustela Canadensis*); of the wolverin (*gulo luscus*). The wolves' skins are generally used as cloak and coat linings in Russia and other cold countries, by those who cannot afford the more choice kinds; also for sleigh coverings and open travelling carriages. The other skins enumerated are principally used for trimmings, &c. The tail of the *canis occidentalis* is very valuable, and is exclusively used by the Hebrew race on the Continent. The North American badger, of which some fine specimens were shown, is exported for general wear; its soft fine fur rendering it suitable for that purpose. The European badger, on the contrary, from the wiry nature of its hair, is extensively used for the manufacture of the superior kinds of shaving-brushes. The Hudson's Bay martin or sable (*mustela martes*), is principally used for ladies' wear, and is next in repute and value to the Russian sable. It is consumed in large quantities in this country, in France, and in Germany. The darkest colours are the most valuable, and the lighter shades are frequently dyed to imitate the darker varieties. The heraldic associations connected with the sable render it highly interesting to the historian and the antiquary. In every age it has been highly prized. The lining of a mantle, made of

black sables with white spots, and presented by the Bishop of Lincoln to Henry I., was valued at £100, a great sum in those days. In the reign of Henry VIII. a sumptuary law confined the use of the fur of sables to the nobility above the rank of viscounts. The minx (*mustela vison*), is exclusively the produce of the Hudson's Bay Company's possessions, and other parts of North America. It is consumed in Europe in immense quantities, principally for ladies' wear; its rich, glossy appearance, and dark brown colour (similar to sable), combined with its durability and moderate cost, justly render it a great favourite.

The musquash, or large American musk rat, is imported into this country in immense numbers; it was formerly used much in the manufacture of hats, but the introduction of the silk hat has entirely superseded it. The musquash is now dressed in a superior way, and is manufactured extensively for female wear, both in its natural and dyed state. It is a cheap, durable, and good-looking fur. This humble article has, we believe, been introduced to the public under every name but its real one, and thousands who use it are led to believe that they are possessed of sable, minx, and other real furs. The white hare (*lepus glacialis*), from the Polish regions, and also from Russia, is perfectly white in winter, but in summer it changes to a greyish tint. The skins being exceedingly tender, it has latterly given place to the white Polish rabbit, which is more durable, and therefore more suitable for that purpose. When dyed, it looks exceedingly rich and beautiful, and is often palmed off upon the inexperienced for superior furs. The Hudson's Bay rabbit is one of the least valuable skins imported by the company. Like all furs from the polar regions, it is fine, long, and thick, but the skin is so fragile and tender, that it is almost useless; it is, however, dyed and manufactured for ladies' wear, and is sold by many dealers, we believe, under various names, and even frequently as sable; but, to the great annoyance of the purchasers, it soon breaks, the fur rubs off, and it falls to pieces.

The large North American black bear is termed the "army bear," because its fur is generally used in this and other countries for military purposes, for caps, pistol holsters, rugs, carriage hammercloths, sleigh coverings, and accompaniments. The fine black cub bears are much sought after in Russia for making shube linings, coat linings, trimmings and facings; the other sorts, with the large grey bears, for sleigh coverings, &c. The skin of the white Polar bear, the supply of which is very limited, is generally made into rugs, which are often bordered with that of the black and grey bear. The brown Isabella bear is at the present time used for ladies' wear in America. Forty years since, the Isabella bear was the most fashionable fur in England—a single skin producing from thirty to forty guineas; but the caprice of fashion causes similar skins at the present time to produce not more than as many shillings.

Near the group of bears was a small and valuable collection of the skins of the sea otter (*eutrydra maritima*). This animal is mostly sought after by traders on account of its value—a single skin producing from thirty to forty guineas. It is said to be the royal fur of China, and is much used by the great officers of state, mandarins, &c. It is in great esteem in Russia, and is principally worn by the nobles, for collars, cuffs, facings, trimmings, &c. On account of its great weight, it is rarely used by ladies. Among North American and Canadian skins, Messrs. Nicholay and Son exhibited likewise a group of racoon (*procyon lator*). The finest qualities of racoon are, we believe, produced in North America, and are imported into this country in immense numbers. They are purchased here by merchants who attend the periodical fur sales, and who dispose of large quantities at the great fair at Leipsic. They are principally used in Russia and throughout Germany, for lining shubes and coats, and are exclusively confined to gentlemen's wear. The dark skins are the choicest, and are very valuable. We had next a group of cat lynx (*felis rufa*). This animal is

mostly found in Canada, and is a distinct variety of the lynx species; the skins are exported, and are made into cloak and coat linings, being very suitable for cold climates, and very moderate in price. The North American minx is found in great numbers in Newfoundland, Labrador, the Canadas, &c., and is the finest of the species. Several most excellent specimens of this skin were shown. Some furs of the Virginian or North American grey fox completed the collection of the produce of the Canadas, Newfoundland, and Labrador. This fur is at present used to a considerable extent for open carriage wrappers, sleigh wrappers, coat and cloak linings, also for fur travelling bags, foot muffs, &c. Its exceedingly moderate price, warmth, and great durability, render it an especial favourite.

We now propose to notice the European furs. Foremost in interest among those was a group of Russian sables (*martes zibellina*). This is one of the most costly furs, a single skin varying in price from three to ten guineas. It is usually manufactured into linings, which are generally used as presents by the Emperor of Russia, the Sultan, and other great potentates, being of the value of one thousand guineas and upwards. They are also manufactured for ladies' and gentlemen's wear, according to the prevailing fashion of the country. The Lord Mayor, Aldermen, and Sheriffs of the city of London, have their robes and gowns furred with the sable, according to their respective ranks. The tail of the sable is also used in the manufacture of artists' pencils or brushes, being superior to all others. The tail of the sable makes very beautiful trimmings, which, together with muffs and boas of the same, are much prized. Russia produces about 25,000 of these valuable and admired skins annually. Naturalists have not yet decided whether this species is identical with that from North America—the fur of the former being much softer, finer, and longer than that of the latter.

The stone martin (*martes albogularis*), of which several

groups were exhibited, is widely spread over Europe, and derives its name from the fact of the animal selecting rocks, ruined castles, &c., as its haunts. The fur in its natural state is soft and fine, and shades from a light to a dark-bluish grey, taking the colour of the rocks amongst which it is found. The throat is invariably a pure white. The French excel in dyeing this fur, and it is in consequence termed French sable; it is extensively used in this country, and being a permanent colour, and much like the true sable, it is a great favourite. Several groups of baum (or tree) martin (*martes abietum*), were also shown. This fur derives its name from the fact of the animal being invariably found in woods and pine forests. The fur in its natural state is similar to the North American sable, but coarser. It is distinguished by the bright yellow colour of the throat: when dyed, it is so like the real sable, that it can scarcely be distinguished from it.

The groups of ermine (*mustela erminea*), in their natural state, next demand notice. The ermine is obtained in most countries; but the best is from Russia, Sweden, and Norway. The animal is killed in the winter, when the fur is pure white (except the tail, with its jet-black tip), it being in that season in its greatest perfection; in summer and spring it is grey, and of little or no value. It is the weasel of more southern climes. The ermine is the royal fur of most countries. In England, at the coronation of the sovereign, the minever, as the ermine is styled in heraldic language, is used, being powdered, that is, studded with black spots; the spots, or powdered bars, on the minever capes of the peers and peeresses, being in rows, and the number of rows or bars denoting their various degrees of rank. The sovereign and the members of the royal family have the minever of the coronation robes powdered all over, a black spot being inserted in about every square inch of the fur. The crown is also adorned with a band of minever, with a single row of spots; the coronets of the peers and peeresses having a similar decoration. The black spots are made of the skin

of the black Astracan lamb. On state occasions, in the House of Lords, the peers are arrayed in their robes of state, of scarlet cloth and gold lace, with bars or rows of pure minever, more or less according to their degree of rank; the sovereign alone wearing the royal minever, powdered all over. The judges, in their robes of office, are clad in scarlet and pure ermine. The ermine, with the tail of the animal inserted therein, is used as articles of dress for ladies, in every variety of form and shape, according to the dictates of fashion, and also as cloak linings. The minever can only be worn on state occasions by those who, by their rank, are entitled to its use. In the reign of Edward the Third, furs of ermine were strictly forbidden to be worn by any but the royal family; and its general use is prohibited in Austria at the present time. In mercantile transactions the ermine is always sold by the *timber*, which consists of forty skins. The minever fur of the olden time was taken from the white belly of the grey squirrel. The Kolinski (*mustela Siberica*), or Tartar sable, is procured from Russia; it belongs to the weasel tribe, and is in colour a bright yellow: it is much used in its natural state, and is also dyed to imitate the cheaper sables. The fur which is probably more extensively used in this country than any other, is that of the squirrel (*sciurus*). The squirrel abounds in Russia (where the fur attains the greatest perfection), in such immense numbers as would appear almost incredible—the importation from thence to this country alone, last year, exceeding two millions. It is manufactured entirely for ladies' and children's wear: for cloak and mantle linings it is particularly suitable, its moderate cost adapting it to general use. The celebrated Weisenfels linings deserve a remark here, being made from the belly or white part of the dark blue squirrel. The exquisite workmanship and lightness of this article are without parallel, a full-sized cloak-lining weighing only twenty-five ounces. This favourite commodity is known as the *petit gris*. For colder climates the linings are made from

the back or plain grey part of the squirrel, the best having part of the tail left on each skin. The lighter colours have lately been dyed, and introduced to imitate the expensive sables. The squirrel tail is made into the round boa and trimmings, purposely for the foreign market; it is also used for artists' pencils. We find the squirrel named in the sumptuary laws, in the reign of Henry III., and at the same period the minever fur was the white part of the squirrel's belly. Russia produces about 23,000,000 annually.

The fitch or pole-cat (*putorius fœtidus*) is also so well known as to need but little description. About forty years since it was one of the most fashionable furs; the richness of its colour (the top hair a jet black, the ground a rich yellow), combined with its durability, caused a great consumption of this skin; but its peculiar odour, from which it is called the *foulmarte*, has probably been the cause of its gradual disuse. It is produced in the greatest perfection in this country. Of lambskins there were various specimens, including those from Crimea, the Ukraine, Astracan, with Persian, Spanish, Hungarian, and English. The grey and black Russian lamb is mostly used for gentlemen's cloak and coat linings, for facings, collars, caps, &c., and also for army purposes. The Astracan lamb has a rich wavy, glossy, black skin, extremely short in the fur, having the appearance of beautiful watered silk: in order to obtain this choice skin, the parent sheep is destroyed a certain time before the birth of the lamb. The Persian grey and black lamb is covered with the minutest curls possible; this is not a natural growth, but is caused by the animal being, as soon as born, sewed up tightly in a leathern skin, which prevents the curl from expanding, and which is not removed till the desired curl is produced; from the means adopted, both sorts are rather costly, and they are used for gentlemen's wear and military purposes. The Hungarian lamb is produced in that country in immense numbers; the national coat, called the Juhasz Bunda, is

made of it. In the summer or in wet weather the fur or woolly part is worn outside; in winter when warmth is required, it is reversed. The skin is tanned or dressed in a way peculiar to the country, and decorated and embroidered in accordance with the means and taste of the wearer. In Spain, the lamb is used for the well-known and characteristic short jacket of that country, which is adorned with filagree silver buttons; the coarse kinds of both colours are used for our cavalry, and they are also employed for mounting and bordering skins, as leopards, tigers, &c., for ornamental and domestic purposes. In the reign of Richard II., the sergeant-at-law wore a robe furred inside with white lambskin and a cape of the same. The furs of the perewaitzki and of the hamster, which are obtained from Russia, are principally used by ladies; the latter is made into cloak linings, which are exceedingly light, durable, and cheap.

Passing from these, we next come to the skin of that well-known and useful domestic animal, the cat. The cat, when properly attended to, and bred purposely for its skin, gives a most useful and durable fur. In Holland it is bred and kept in a confined state till the fur attains its greatest perfection, and it is fed entirely on fish. In other countries, and especially our own, it is produced in large numbers. The wild cat is much larger, and longer in the fur, and it is met with in extensive forests, particularly in Hungary; the colour is grey, spotted with black, and its softness and durability render it suitable for cloak and coat linings, for which purpose it is much used. The black species is also much in request, and is similarly used, and, with the spotted and striped varieties, it is made into wrappers for open carriages, sleigh coverings, and railway travelling. The value of this skin, and its extensive consumption, have, no doubt, been the cause of the disappearance of many a sleek and favourite "tabby," and we would recommend those of our readers who are in possession of a pet of this description to keep careful watch and ward over it. We understand that the market is rapidly

increasing, and the operation of the laws of supply and demand has led to the formation of an unprincipled class, who ruthlessly poach upon these domestic preserves.

We next come to the English rabbit, which yields a most valuable and extensively used fur—both in its wild and its domestic state; and the supply may be said to be inexhaustible. It was formerly employed to make the felt bodies, or foundation, of the beaver hat; but at present, not being used for that purpose, it is dressed, dyed, and manufactured in immense quantities into various useful cheap articles. The wool has recently been used in making a peculiar cloth, adapted for ladies' wear. The English silver grey rabbit was originally a breed peculiar to Lincolnshire, where great attention was paid to it. Warrens of this species have since been formed in various parts of the country. It is in great demand in China and Russia, to which countries it is largely exported, on account of the high price there obtained. The white Polish rabbit is a breed peculiar to that country, and the skin is there made into linings for ladies' cloaks, being the cheapest and most useful article available for that purpose. It is imported in great numbers into this country. The finer sorts of white rabbit are much used as substitutes for ermine; and when the real ermine tails are inserted therein, the imitation is so perfect, that it requires the practised eye of the furrier to detect the imposition. So late as the reign of Henry VIII. great value was attached to the cony or rabbit skin, and the charter of the Skinner's Company shows that they were worn by nobles and gentlemen. Acts of parliament were passed, regulating their sale and exportation, which are still unrepealed, though in abeyance.

Several fine specimens of seal skin were contributed by Messrs. Nicholay and Son. The fur seal, the supply of which is small compared with other kinds, is brought to a degree of high perfection in this country; when divested of the long coarse hair, which protects it in its native element, there remains the rich, curly, silky, yellowish down, in which state it was formerly used for travelling caps and

other purposes. It is now seldom made use of in this state, but is dyed a beautiful Vandyck brown, giving it the appearance of the richest velvet; and it is manufactured in every variety of shape and form, into articles of dress for ladies', gentlemen's, and children's wear.

Passing from the seal skins, we next observed several groups of chinchilla. The chinchilla is exclusively a South American animal. Since its introduction into this country and France, about forty years since, it has continued to be a favourite and fashionable fur. Its extreme softness and delicacy confine it to ladies' wear. It has lately been largely exported from this country to Russia and Germany, where it is greatly admired. The bastard or Lima chinchilla is a short poor fur, altogether very inferior to the other, but often, to those who are not judges, substituted for the superior kinds.

Leaving the northern latitudes and the New World, let us direct our attention to the skins from the tropics, such as lions', tigers', leopards', panthers', &c., several fine specimens of which were shown in the Indian department, as well as by individual exhibitors. In China, the mandarins cover the seats of justice with the skin of the tiger. In this country, the use of the leopard's skin under the officers' saddles is a mark of military rank adopted in some of her Majesty's cavalry regiments. In Austria the small fine leopard's skin is worn as a mantle by the Hungarian noblemen of the Imperial hussar body guard. Of buffalo robes, or skins, several specimens were exhibited. The buffalo is killed in immense numbers by the North American Indians, solely for the tongue, the skin, and the bosses. They have a peculiar method of dressing the skin with the brains of the animal, in which state it is always imported. It has of late years been much used in Europe and this country as a warm travelling wrapper, its moderate price placing it within the reach of almost all classes; and in the colder climates it is similarly used also for sleigh wrappers, and cloak and coat linings. From Asia Minor we had specimens of the skin of the Angora goat,

which is produced in large numbers in that part of the world, and is remarkable for its long, curly, rich, white, silky coat. It was formerly a most costly and fashionable article of ladies' wear, but it is at the present time of little value. When dyed, it takes some of the most beautiful and brilliant colours. Its low price has caused it to be adapted to weaving purposes with success. It is frequently made into very beautiful rugs for drawing-rooms, carriages, and other purposes.

FEATHERS.

The class in which furs and skins were exhibited also included feathers, the principal British display of which was by Messrs. Adcock and Co. Among their collection of feathers for dress, in a handsome glass-case in the British nave, were the several varieties of the feathers of the ostrich, dressed and undressed, which vary in quality according to soil and climate. There were some of the finer sorts, such as the Aleppo and Mogador, made into plumes, as used by the Knights of the Garter, the Knights Grand Crosses, and the King's Champion at the coronation of George IV. These feathers were also shown formed into a variety of court plumes, such as have been worn since the beginning of the century up to the present time, showing the alterations in the fashion during the last fifty years. Some of the black feathers—which come from the back and wings of the bird—are made into plumes for military purposes, as used by the Highland regiments; some are dyed in brilliant colours, and, to show the perfection of the art, several colours are produced upon the same feather, a process never attempted until within the last twenty years. There were also specimens from the marabout stork (*leptopilius crumeniferus*) made into plumes and screens, with the feathers of the scarlet ibis, which have a very pretty effect; some of these were also dyed various colours on the same feather. There were likewise some knotted and made into trimmings, with gold, suitable for dresses—a work of great time and pa-

tience, as every knot has to be tied separately. Some of the grey marabouts were dyed black, which, in this description of feather, is a colour very difficult to produce. The feathers of the birds of Paradise were in great variety, both in their natural state and dressed for ladies' use; some were dyed different colours, many of which, considering the natural colour of the bird (which is a bright gold), are very difficult to accomplish—as, for instance, the purple and rose colours, as well as the mixed hues, which are not very often seen.

Some plumes made from the feather of the rhea, or South American ostrich, were also to be found among the collection. These feathers are usually called by the plumassiers "vultures," and are used for a variety of purposes—some for military plumes, others for ladies' wear. There were also the feathers of the emu, which are much prized on the continent, and are there known as the *plume de casoir*. The feathers of the heron (*ardea cinerea*), which are used by the Knights of the Garter, are very valuable, owing to their scarcity—a small plume being worth fifty guineas. The plumes of the plotus auligna (*plumes d'auligna*), a rare feather, also were in great variety, some mounted with gold and silver. These feathers are frequently called heron plumes, and are worn by persons of rank in the East. Besides these, there were the feathers of the large egret, which are used by the officers of the hussar regiments. There were also the feathers of the small egret (*herodias gurzetta*), some dyed in different colours; the feathers of the scarlet ibis, in the form of wreaths; also those of the argus pheasant, made into screens, and the feathers of the peacock. We had likewise some from the common cock, made into a variety of plumes, as well as those of the turkey, the swan, and the eagle; the latter are used in the Highland costume.

Some interesting specimens of the grebe (*podiceps cristata*) were to be seen in the fur department. This is an aquatic bird, inhabiting most of the lakes in Europe. The choicest specimens were from Geneva, Italy, and Holland,

The feathers are of the richest white, having the appearance of polished silver, the plumage on the outer edge of the skin being a rich dark brown; it is used by ladies, forms a most beautiful and elegant article of dress, and is worn as trimmings for the trains of court and drawing-room dresses, for muffs, cuffs, boas, &c. It is very durable; the exquisite smoothness of the feathers prevents its soiling with wear.

We next notice the beautifully soft and elastic down known as the eider-down. The bird from which this substance is taken is found in large numbers in Iceland, Norway, and Sweden. Its colour is dark grey, and its elasticity, lightness, and resistance to wet, are prominent amongst its other advantages; it is used for the inside stuffing of muffs. On the Continent the well-known eider-down quilts are, on account of their lightness and warmth, considered almost indispensable to bed-rooms. The eider-down is applied to wearing apparel; by being placed immediately under the lining, and quilted, it forms one of the lightest and warmest articles of dress, both for ladies and gentlemen.

The beautiful material known as "swan's-down," of which there were several specimens, is obtained from the swan after the feathers have been plucked. The feathers, prepared and purified, are used for beds, and, being exceedingly durable and elastic, are particularly suited for that purpose. The Hudson's Bay swan quills are much in demand for pens, and for artists' brushes or pencils, and command a high price. A portion of the plumage is also used for ornamental and fancy purposes, and military plumes. Goose-down is manufactured to a considerable extent in Ireland, by being sewed on textile fabrics. The article has been patronised and sold in England extensively, for the benefit of the poor Irishwomen, by whom it is made up. The price, compared with the true swan's-down, is very moderate. Being sewed upon cloth, it can be washed; on the contrary, swan's-down must be placed in the hands of the furrier when required to be cleaned.

A specimen of the ornithorhyncus, or duck-billed platypus, a native of Australia—one of the most extraordinary animals in nature—was exhibited by Mr. Ellis, of Fore-street. The skin is very much like that of the otter, and seldom exceeds twelve inches in length; the supply is very limited. The animal is a sort of connecting link between the bird and the beast—having the claw and body of the latter, and the bill and web foot of the duck. The male is furnished with two powerful spurs on each hind leg, similar to the game cock. The female lays eggs, which she hatches, and then suckles her young brood—which extraordinary fact was not generally credited till, some years since, preserved specimens of the creature were brought to this country, and submitted to the late Sir H. Halford, who dissected them, and delivered a lecture thereon at the College of Physicians, when this circumstance was first made public. Many attempts have been made to bring them to this country alive, but without success. In the Cape of Good Hope department a tippet was shown made from the feathers of various Cape birds. From Van Diemen's Land some feathers from the mutton bird, or sooty petrel (*puffinus brevicaudus*) were shown. They are well adapted, and are much used in the colony, for pillows, bolsters, and mattresses. From the immense numbers of these birds which resort to the islands in Bass's Straits, and the profusion of feathers with which they are clothed, there would be no difficulty in obtaining the latter in any quantity that might be required. When better known in this country, it is not unlikely that they will prove a profitable article of export from the colony.

In the foreign department the display of feathers was very limited. Those more particularly worthy of notice were two splendid heron plumes, contributed by MM. Perrot, Petit, and Co., of Paris, of the value of 3,000*f.* each, and some very fine bird of Paradise feathers. There were also some fine specimens, adapted for ornaments for the mantel-piece, for head-dresses, and screens, exhibited by M. L'Huillier and M. Lodde of Paris.

CHAPTER XXI.

SCULPTURE—*continued.*

HONOURABLE MENTION: BEHNES, BISSEN, BONASSIEUX, CLESINGER, CORDIER, COSTOLI, FRESCIA, NENCINI, GEEFS, JAQUET, LEEB, MARCHESI, MILLER, PASCHAL, SANGIORGIO, STEPHENS, THEED, THORNYCROFT, WAGNER, WEEKS—COLOSSAL STATUE OF THE QUEEN—STATUE OF THE DUKE OF WELLINGTON—MARQUESS OF WELLESLEY—VICTORY, BY RANCE—WOODINGTON'S GIRL AT THE SPRING—GROUP OF MILTON AND HIS DAUGHTERS, BY LEGREW—GROUP OF SCIENCE UNVEILING IGNORANCE AND PREJUDICE, BY THOMAS—SAMSON BURSTING HIS BONDS, BY LEGREW, ETC., ETC.

HAVING in our last chapter on sculpture, described the productions of those artists who received, from the award of the jury, council and prize medals, we now propose to devote our attention to the examination of the works of such as received the gratifying distinction of "Honorary Mention."

Mr. WILLIAM BEHNES, of London, is the first upon our list among these worthies, being indebted for the honour he received to his statue, in marble, of "A Startled Nymph," represented as just emerging from the bath, and startled by the sudden appearance of a lizard at her feet. The sentiment expressed by the sculptor in this simple and graceful figure was one of mingled curiosity and surprise, rather than of fear or alarm. The treatment of the subject was free from any false affectation, and the beauty displayed, "when unadorned, adorned the most," was full of innocence and nature.

M. H. W. BISSEN, of Copenhagen, exhibited a spirited figure of Orestes, the impassioned and poetical hero of the Greek dramatist, brandishing his sword, and rapidly moving forward. In this work the conception was full of life, the momentary character of the action well rendered, the countenance full of nobleness and grace, and the execution carefully attended to.

BONNASSIEUX, of Paris, and CLESINGER, of Besançon, received their respective meed of praise; the first for a group in bronze, representing Cupid, as a youthful figure, clipping the tips of his own wings, a dog standing beside him. The form of the Cupid was very graceful, but it appeared to us that the head was too directly copied from the antique. The execution, moreover, was very unequal; the dog, in particular, being very carelessly modelled. The second, but for the meretricious character of his production, would have received a still higher distinction. It represented a Bacchante rolling upon the ground under the full excitement of "tipsy revelry." The figure was remarkable for the masterly chiselling of the marble, the great knowledge of anatomy, and the beauty of the countenance. But these excellences were not sufficient to excuse the sculptor for having in his work allowed his imagination to be perverted and degraded to the service of a low sensuality. We trust this young artist, whose talents are unquestionably of the highest order, will, in his future works, elevate his genius to the contemplation of purer and less exceptionable forms.

Of a very different description was the unpretending but meritorious work of C. CORDIER, of Paris, representing the head of a Negro, in bronze, a true example of characteristic portraiture, full of life in the conception, and masterly in execution.

After the statue of the Dying Gladiator, that dignifies by its august presence the marble halls of the Roman Capitol, it appears presumptuous in a modern sculptor to attempt a fresh representation of the subject. The bow of Ulysses none of the suitor tribe were able to bend. Nevertheless, the Dying Gladiator, by Signor COSTOLI, of Florence, has been honourably mentioned by a discriminating and impartial jury, and is worthy of our favourable notice. Signors FRESCIA and NENCINI, both also of Florence, have the same claim upon our praise; the one for his statue of Psyche, the other for a figure of a reclining Bacchus. They, likewise, both received "honourable mention."

The same honour was also awarded to M. JOSEPH GEEFS, of Antwerp, for his "Faithful Messenger, in which work the sculptor has represented a dove perching on the shoulder of a young girl, to whom it has returned. The statue was very pleasing, but it was hardly a work of sufficient consequence to give an idea of the distinguished merits of this artist. M. J. JAQUET, of Schaerbeek, near Brussels, figures in the same list, for his group, in plaster, of Cupid asking Venus to restore his bow, which she has taken from him. This work was pleasing, though somewhat affected in motive. The execution was careful, though the development of the muscles, particularly on the back and shoulders, was too strong.

M. J. LEEB, of Munich, received honourable mention for his statue of a Young Girl holding a nest full of young Cupids; an extremely agreeable composition, full of *naïveté* in conception, and carefully executed in marble. The late admirable Thorwaldsen was particularly successful in these little anacreontics in marble, as his well-filled studio in the piazza Barberini at Rome bore ample testimony. MARCHESI, of Milan, next demands our notice for his statue, in marble, of Eurydice, which, although its execution was somewhat neglected, fully deserved the award it received for its design and agreeable expression. Mr. F. M. MILLER, of London, was also comprised in the list, honourably mentioned, for his marble group of Two Orphan Children at Prayer; as were Mr. and Mrs. THORNYCROFT, for their agreeable statues, in plaster, of the Royal Children in the character of the Seasons.

M. MICHEL PASCAL, of Paris, also received the same desirable mark of distinction for a group, in marble, of a Monk holding out a crucifix, which a little boy was eagerly kissing; a little girl was standing by, steadfastly gazing at him. There was a charming feeling for nature in the expression of the heads, but the general composition, and particularly the drapery, might be considered rather picturesque than plastic in style, and, with the exception of the nude forms, the whole was only sketched out in the

marble. Signor A. SANGIORGIO, of Milan, comes next upon our list for his colossal bust, in marble, of the poet Vincenzo Monti. The conception of this work was very spirited, but a little strained, and the execution most masterly and careful. E. B. STEPHENS, of London, for his *Deer Stalker and Dog*; and W. THEED, also of London, for his *Prodigal Son* and his *Narcissus*, works already noticed by us, appear in this category, which we conclude with the name of H. WEEKES, for his *Sleeping Child, with a Dog*.

In casting an eye over our review of the productions in sculpture in the Crystal Palace, it will be seen that no other nation exhibited so many works of this class as Great Britain. It was observed by the jury, that this might be partly accounted for by the fact, that the English sculptors have not been embarrassed, like those of other countries, by the cost of transporting their works from a distance; but the far greater wealth of the English, as compared with other nations, is another cause of this numerical superiority. With regard to the quality of their sculpture, it must be confessed that the productions of the modern English school, till within a comparatively recent date, have not been such as to command the approbation of the most competent judges.

"In the earlier periods of English art," observes an able critic, "the name of Flaxman stands alone; and, fertile as this great genius was in invention, the execution of his works hardly equals the beauty of their conception. His influence seems to have been scarcely felt for a considerable period; the strong tendency to Realism* in the English school of sculpture found its natural expression in

* A work is called Realistic when the artist restricts himself to the task of rendering an individual model in all its parts, forms, character, and the like, just as they appear before him. On the other hand a work of art is called Ideal when the artist modifies the figure in these same respects according to his own feeling for its inner significance and outward beauty of form—attributes which necessarily vary in each case.

portraiture. Chantrey, long pre-eminent among his contemporaries, produced a great number of admirable busts; but in all the works of this period which have a higher pretension, and claim to rank as Ideal sculpture, there is a striking deficiency, not only in scientific knowledge, but in taste and in genuine Plastic style.

Having now in this and in several preceding chapters expatiated on the magnates among the sculptors, such as were deemed, in the opinion of an enlightened jury, worthy of distinction, from the envied holder of a council medal, to the gratified receiver of "honourable mention," we will now bestow a glance or two towards those less favoured sons of the chisel whom we do not consider the "*oi polloi*" of their race, merely because their contributions were altogether unnoticed in "the Reports." Some of their works, in companionship with those of their more favoured brethren, have, in the opinion of *our* talented jury, been deemed worthy of illustration by the burin of the most distinguished artists, and have been the subject of admiration to our innumerable readers. Gray has beautifully observed of these obscurer treasures—

"Full many a gem of purest ray serene
The dark unfathomed caves of ocean bear,
Full many a flower is born to blush unseen,
And waste its sweetness on the desert air."

Waiving, however, the question as to the exact applicability of this quotation to the subjects before us, let us resume our critical exposition; we shall in the first place, make mention of "a colossal statue of the Queen," which represented our gracious Sovereign seated upon the throne, arrayed in all the attributes of royalty, an appropriate compliment from the Vieille Montagne Zinc Company, of France and Belgium, to this country, in commemoration of the Great Exhibition of all Nations. Its production also afforded an instance of extraordinary energy, having been, we are informed, "commenced and brought to its perfect state within the short space of three months."

The statue stood, with the pedestal, twenty-one feet high. The design and modelling were from the hands of M. Dantan, *ainé*, of Paris; the etchings of the pedestal by M. Lenormand, architect, and produced by M. Hardouin. The statue was cast under the immediate inspection of M. Victor Paillard. Independently of all consideration as a work of portraiture, this was a remarkable production, and deserved attention. We, nevertheless, protest against colossal portraits, particularly of females. Beauty and grace are altogether independent of size; neither does the expression of dignity and power require any development beyond the natural dimensions of the human figure. We do not fancy a Venus twelve feet in height; such Brobdignagian beauties are by no means to our taste; neither do we think the majesty of a hero is at all increased by extending his corporeal bulk. Alexander, Napoleon, and Wellington, were anything but gigantic in stature. Why then should we have the "hero of a hundred fights" presented to us in colossal proportions, as Mr. Milnes has represented him? In honour of his great name and glorious achievements, we have, notwithstanding our opinions of its merit as a work of art is by no means an exalted one, assigned a place among our illustrations to the statue of the departed warrior, as well as to that of the illustrious statesman, his kinsman and namesake.

The idea of victory so naturally follows the name of Wellington, that we need no apology for introducing to the notice of our readers, the statue of that goddess, by Professor Rance, of Berlin, a delineation of which will be found among our engravings, from the daguerreotype. She is represented sitting, apparently overlooking a field of battle, and holding a wreath of laurel in her hands, ready to crown the successful combatant.

From the tented field, let us pass to "the gentle neighbourhood of grove and spring," and bestow a glance of admiring approbation on yonder graceful figure of a nymph. It is from the chisel of Woodington, and was entitled "A young Girl at the Spring," and a very

classical and beautiful figure it is, and well worthy of examination and praise. We shall next direct attention to a group by Legrew, entitled "Milton and his Daughters." The immortal bard is represented sitting between his two female supporters, raising his eyes heavenward, and apparently in the fervour of composition. We may even imagine him, from the sad, yet elevated expression of his countenance, to be giving utterance to his beautiful and touching apostrophe:—

"————— Thus with the year
Seasons return; but not to me returns
Day, or the sweet approach of even or morn,
Or sight of vernal bloom, or summer's rose,
Or flocks, or herds, or human face divine;
But cloud instead, and ever-during dark
Surrounds me, from the cheerful ways of men
Cut off, and for the book of knowledge fair,
Presented with a universal blank
Of nature's works to me expunged and raised,
And wisdom at one entrance quite shut out.
So much the rather thou, celestial light,
Shine inward, and the mind through all her powers
Irradiate; there plant eyes, all mist from thence
Purge and disperse, that I may see and tell
Of things invisible to mortal sight."

In the vicinity of the above described group, was an allegorical composition by Thomas, denominated "The Spirit of Science unveiling Ignorance and Prejudice." We do not particularly admire allegory, either in sculpture or in painting. Even in poetry it is wearisome. The sweet and impassioned language of a Spenser renders it barely endurable. The glowing tints and vigorous delineation of Rubens fail to give it interest, and sculpture wastes her powers on mystifications, that are generally unintelligible without the aid of lengthened description. In the present subject, we see no reason to change our opinion, as to its failure in respect to interest.

"Sampson Bursting his Bonds," by Legrew, was not so felicitous an attempt as his Miltonic group. The artist has fallen into the usual error of nearly every one that

has treated the subject, of representing his hero as a mere man of extraordinary weight and muscle. Scripture does not authorize the idea that the divinely gifted Nazarite was nothing more than a brawny giant, if he was a giant at all, or that his strength, like that of ordinary mortals, was consequent on physical superiority; the gift was mysteriously placed in his hair, and when his locks were shorn from his temples, his strength departed from him, although it cannot be pretended that his bodily frame, the compactness of bone and muscle, was one whit diminished or in any respect impaired. No—the divine gift, the heavenly inspiration, was altogether wanting. We were tempted, as we stood before this ponderous piece of muscular development, to exclaim with the chorus in Milton's noble poem—

“Can this be he,
That hero, that renowned
Irresistible Samson?—whom unarmed,
No strength of man, or fiercest wild beast, could withstand;
Who tore the lion, as the lion tears the kid;
Ran on embattled armies, clad in iron,
And, weaponless himself, made arms ridiculous?”

—*Samson Agonistes*.

We now turn to a classical subject in *basso rilievo*, by Physick, “Pluto and Proserpine.” Of all fables of antiquity, none is more redundant of magnificence and gorgeous imagery than that of the Rape of Proserpine, as treated by the courtly Claudian, of whose enduring reputation, indeed, it forms the basis. Mr. Physick's highly poetical conception of the subject, and the spirit with which he has executed it, authorises, or rather demands a somewhat more detailed account of it than we can in general find room for, in our criticisms on individual performances. After a brief, but highly poetical introduction, the poet proposes at once his theme—

“Of hell's dread ravisher, whose fiery car
And ebon steeds affrighted from their spheres
The train of night; of Pluto's bridal bower,
Dark in its festive gloom with horrid shades

My labouring mind impels my eager voice
 In daring notes to sing. * * * O, say,
 What torch of love inspired the gloomy king,
 What sudden seizure doom'd stern Proserpine
 To joyless chaos."

We are then let into a few "family secrets," and we find that Pluto thinks himself, and with sufficient reason, very ill used by his brother Jupiter, who seems resolved to keep him in a state of celibacy, as well as in one of comparative exile among scenes "hideous and wild." He broods over his wrongs, till he feels inclined to call upon the furies and all his shadowy subjects, to aid him in his desire to avenge them, and turn the realms above into an uproar. From this he is dissuaded by the fates, who, kneeling before him, and strewing at his feet "their locks white with severest age," recommend the peace measures happily coming into vogue in the present day, and an appeal to the *moral force* of truth and fair argument. Accordingly, he sends Mercury to represent his wrongs to the ruler of the skies, who, after deep and deliberate cogitation, determines that the fair daughter of Ceres shall be the bride of the monarch of the dead. He accordingly instructs Venus to entice the fair Proserpine to the fragrant fields of Enna, "parent of sweet flowers;" where, while she is disporting with her attendant maidens,—

"Suddenly a tumult wild and loud
 Arises; turrets bow their trembling heads,
 And towers and lofty spires are levelled low;
 No cause appears; the Paphian queen alone
 Acknowledges the sign, and trembling feels
 A doubtful pleasure, mixed with secret fear.
 And now the dark-browed ruler of the dead,
 Through shades, and winding caverns of the earth
 Urges his fiery steeds. * * * * *
 * * * * * Fast fly the nymphs,
 Fair Proserpine is hurried to the car,
 Imploring aid."—*Strutt's Claudian*.

Having now arrived at the point of action represented in Mr. Phvsick's *basso rilievo*, we will dismiss the fair Proser-

pine to the care of the enamoured ruler of the shades below, and turn to an *enlèvement* on a larger scale, celebrated in the early history of Rome, an incident in which the Marquis Ginori has sculptured in Parian marble on a small scale. And he has succeeded in producing an interesting and well-arranged group.

"The Hours leading forth the Horses of the Sun," executed in rilievo for Earl Fitzwilliam, by Gibson, is a very classic and masterly performance, full of animation and spirit. This has always been a favourite subject, both with the sculptor and the painter. Every lover of the fine arts is acquainted with the exquisite fresco, representing the same subject, by Guido, in the Rospigliosi Palace, at Rome, so full of graceful elegance and poetic fancy, and of which the engraving of Raphael Morghen has so widely circulated the fame, without, however, equalling the surpassing beauty of the original.

Mr. Spence, a pupil of Gibson's, exhibited a statue of considerable merit, entitled "Highland Mary;" a personification of the maiden whose beauty and attractive grace enthralled the susceptible heart of the poet Burns, and whose early death he deplores in the following beautiful lines:—

"Thou lingering star with lessening ray,
That lov'st to greet the early morn,
Again thou usher'st in the day
My Mary from my soul was torn.
O Mary, dear departed shade!
Where is thy place of blissful rest?
See'st thou thy lover lowly laid?
Hear'st thou the groans that rend his breast?"

That sacred hour can I forget,
Can I forget the hallow'd grove,
Where by the winding Ayr we met,
To live one day of parting love!
Eternity will not efface
Those records dear of transports past;
Thy image at our last embrace;
Ah! little thought we, 'twas the last.

Ayr gurgling kiss'd his pebbled shore,
 O'erhung with wild woods thickening green;
 The fragrant birch and hawthorn hoar,
 Twined amorous round the raptur'd scene;
 The flowers sprang wanton to be prest,
 The birds sang love on every spray—
 Till, too, too soon, the glowing west
 Proclaimed the speed of winged day.

Still o'er these scenes my memory wakes,
 And fondly broods with miser care;
 Time but the impression stronger makes,
 As streams their channels deeper wear.
 My Mary, dear departed shade!
 Where is thy place of blissful rest?
 See'st thou thy lover lowly laid?
 Hear'st thou the groans that rend his breast?"

While we are discussing these *quasi*-domestic subjects, we must not omit to notice two which have been drawn from the writings of the admirable author of *Pickwick*.—The first of these, "Oliver Twist," represents the interesting subject of the memoir, in his forlorn and destitute state, before he is accosted by the "artful dodger;" this was in the American department, and was the production of Stephenson, who exhibited the Wounded American Chief. The latter, "Little Nell and her Grandfather," was from the chisel of William Brodie, of Edinburgh, and formed an exceedingly attractive group. The point of time chosen was, when the old man had just escaped the fangs of the gambling sharpers, whose persuasion and advice had nearly driven him to exchange poverty for crime; and when his faithful Little Nell, like a guardian angel, had prevailed upon him to fly from the scene of temptation; but when "the noble sun arose, with warmth in its cheerful beams, they laid them down to sleep upon a bank hard by some water. But Nell retained her grasp upon the old man's arm, long after he was slumbering soundly, and watched him with untiring eyes."

The little group called "Love Triumphant," is one of those prettinesses in marble, which take rank with the

minor productions of Simonis, and about which there is always a little knot of sympathisers in all public exhibitions. It is pleasant to see an artist of high merit descending to these lighter and more playful compositions. Torvaldsen had, in the abundant treasures of his studio, many similar graceful trivialities, which never failed in attraction to all genuine admirers of art.

But here, for the present, we conclude our remarks; in a future chapter we may perhaps devote a few more pages to the further consideration of this branch of the fine arts, gleaning here and there such remaining examples as may be likely to awaken the interest, and gratify the taste of our critical readers.

CHAPTER XXII.

MR. WORNUM'S LECTURE—VARIOUS STYLES OF ART—REMARKS ON ORNAMENTAL DESIGN—ON CHINA, GLASS, AND SILVER—ENGLISH WOOD-CARVING—ORIENTAL DESIGN—ENGLISH AND FOREIGN ART COMPARED—CAUTION TO THE STUDENT—TEACHINGS OF THE EXHIBITION.

IN the year of the Great Exhibition, it was curious to observe how the thoughts and conversation of all people turned upon the prevailing topic of interest, "the world's great show." Not only was the fruitful theme discussed in every private party, canvassed at every domestic hearth, but public lecturers and scientific writers also indulged in frequent allusion to, and serious investigation of, the actual state and future results of the mighty phenomenon. The following is the substance of a very interesting lecture delivered by Mr. Wornum at the Central School of Design, which we lay before our readers, not only to illustrate our remark, but as a very instructive piece of "gossip," if we may be allowed the term.

"My object," says the talented lecturer, "is not to explain the Exhibition, even generally, but rather to make use of the Exhibition, or more correctly, some prominent works of art-manufacture contained in it, as one huge illustration of the general principles I have advocated throughout in my lectures. There is not one point that I have urged that is not there practically demonstrated to be of essential importance; and I think I shall be able now to clearly show you that the very first business of every designer is to make himself master of the elements of all established styles, not only for the sake of knowing these styles, but to enable him to effect any intelligible ornamental expression whatever. You must know all: to study one style only will, perhaps, prove more fatal to your success than to study none at all; for, in the latter case, you are open to improvement and new impressions, while in the former your mind is, as it were, a stereotype of a few fixed ideas with which you stamp your uniform mark on everything you touch, as the ignorant knights of old made their sign-manual with their sword-hilts, or their thumb-nails. We have seen '*nature*' very often sentimentiously held up as in antagonism to the so-called historic styles, or absolutely in antagonism to art; this is only the outrageous presumption of ignorance. I need not demonstrate to you, that true art can never be the antagonist of nature. The treasures of art are derived as legitimately from nature's stores for the recreation of our minds, as the grains and fruits of the earth are provided by the husbandman's skill for the nourishment of our bodies. If pure '*naturalism*' is true for the mind, I maintain it is true also for the body; yet if so, there is nothing left for us but all to go out to grass. However, what is nature? We hear of three kingdoms of nature—the vegetable, the mineral, and the animal: one cannot be more natural than the other; therefore, on the score of *nature* herself, we cannot give the preference to any one in particular.

"The naturalists generally have not gone to nature, but

only to one small class of individuals in one of its kingdoms. Let us by all means go to nature, but with a strict impartiality, selecting our forms simply with a view to the most appropriate contrasts or combinations in accordance with the sentiment of the design we have in hand, at once repudiating, *in toto*, the notion that mere imitation can in any way compensate for an incomplete or imperfect arrangement of the parts, as prescribed already by the very sentiment or principles of the contemplated design. This brings us to another point—how far using the elements of past times may be deprecated as a slavish repetition of ancient or mediæval art, and ignoring the wants and sentiments of the present age? Such a result may accrue if we cannot separate old elements from old sentiments; we must, however, go very much out of our way to verify any such disaster, and certainly only by, in the first instance, adopting an old sentiment, as in the so-called Mediæval Court in the Exhibition. But there are, as I shall show as we proceed, very many works in the Exhibition eminently suited to the wants and sentiments of the present age, though composed as ornamental designs, entirely of old elements. The fact of ornamental elements being established favourites of remote ages, does not make them old in a bygone sense, unless they have sprung from a sentiment that is a bygone. Many ancient and middle-age forms, if reproduced now in their genuine original character, would be at best but whimsical revivals; but beauty can never really be antiquated or old-fashioned, whatever the conventionalities of the day may be. What is inherently beautiful is for all time; and the repeated attempts at the revival of classical forms, with a steadily increasing interest on the part of the public, in spite of fashions or conventionalisms the most opposite, is at least one sure test of the inherent beauty of these forms. It is a morbid taste to hunt after variety purely for variety's sake; and it is perfectly legitimate to preserve all that is beautiful, however we may continue to prosecute the search of the beautiful in other provinces; and there are still

unexplored regions of nature left for us. It must be evident that efforts at variety, unless founded on the sincerest study of what has been already done, not by our own immediate rivals in our own time, but by all people at all times, are at most but assumed novelties; but if such really, the chances are that it is their only recommendation, as was the case with the Rococo, the novelty of which represents the exclusion of all the beauty of the past.

"What is recommended by use never grows old: it is only what is fostered by fashion that will be superseded as a new fashion arises. So it is with the duration of the styles: some are characterised by mere local peculiarities or special objects, others by abstract principles. Local peculiarities, and all specialities, when their causes cease, must die out, and cannot be revived except by a revival of the cause; and so, if their causes cannot be recalled, it will be impossible to revive several of the historic styles; but where the causes of styles still exist, the styles themselves are as much of this age as of the past. The Classical and Renaissance styles are founded on abstract principles, and therefore may and must be revived as soon as their motives are thoroughly understood; and such a restoration is not a copy of an old idea, but a genuine revival of a taste—a very different thing from merely copying designs.

"Then to apply our test to the Exhibition itself: it is generally admitted that in spite of much that is bad and indifferent, it offers, on the whole, an unprecedented display of art-manufacture. Of course, in the general review I now propose to take of this wonderful collection of the world's industry, I must limit my remarks, if I am to be at all practical, to the most prominent specimens only, or even to the mere treatment of classes of manufacture; and at present my object goes scarcely beyond an attempt to show you that all the most remarkable works there displayed owe their effect to a skilful management of the results of the labours of generations that have gone before us; from the study and mastery of past efforts, and not

from any sudden impulse of genius or any intuitive adaptation of nature. All that is good is the result of the *study of ornament*, more or less universal or singular, according to the method of that study. The Exhibition contains nothing new—not one new element, not one new combination; and yet it represents, vast as it is, only a small proportion of the great national expressions of ornament, of past ages of the world. And in many cases we have very much more the simple reproduction of an old idea, than the veritable revival of the genuine artistic feeling of the past.”

The lecturer then proceeded to illustrate his remarks by reference to portions of the Exhibition. In Messrs. Wedgwood's stall he found a genuine revival of artistic feeling; and in Mr. Battam's a reproduction of old ideas. He spoke of the Sèvres room as showing general magnificence and classical taste. The glass stall of J. G. Green, of London, was another illustration of a legitimate application of an old taste to modern purposes. With reference to bronzes, the display of these, considering the applicability of the material, he thought remarkably small in the Exhibition, and the general taste trifling. He specially pointed out those by Potts and Messenger, those in the Cinque-cento style by Villemans, and for general good taste, those by Mattifat. The genuine reproductions of the Renaissance by Barbédienne; and the damascened work by Falloise, of Liège, were much to be admired.

The silver work displayed the three tastes—Classical, Renaissance, and Louis XV. A vase, or centre-piece, by Wagner, he considered the finest thing there. A tea-service, by Durand, was noticed. The lecturer treated at some length on the specimens in oxidized silver, and showed the advantage of the method for the display of art. The works of Froment, Meurice, Rudolphi, and Gueyton, were especially mentioned. The Rococo prevailed too generally in English work. The classical specimens, by George Angel, were very admirable. The

fine Cinque-cento centre-piece, by Brown (Hunt and Roskell), suffered, he thought, by frosting and burnishing.

In the carvings there were specimens of Renaissance, Cinque-cento, and Louis XV. Fourdinois and Barbèdienne stood pre-eminent. Riquet-Leprince, Durand, Krieger, Leclerc, and Cordonnier were noticeable. Lechesne's frame, in the Cinque-cento style, he considered a very fine work. After some remarks on the Austrian furniture, on the whole complimentary, the lecturer proceeded as follows:—The objections to English carving imply every want but those of mere mechanical skill and means. There is a want of definite design, and a disregard of utility: there is an overloading of detail, and an inequality of execution, often fatal to the whole effect. In some instances, where the human figure is mixed up with conventional ornament, the last is perfectly well executed, while the former is absolutely barbarous in conception and in execution. Other specimens found their pretensions solely on profusion of details: others, again, are conspicuous only for their bad style, or their Baroque mixture of styles. Let us, then, briefly sum up the conclusions that we may draw from this cursory survey that we have just made; and let every designer treasure it in his mind, for in this result he will have presented to him more forcibly than in any other way, the paramount importance of a knowledge of ornament over and above an artistic or manual dexterity. The Exhibition has pretty well proved that the most dexterous of all artists are the French, yet what an inveterate sameness their works must present to the French eye, from their so generally adopting the same style in almost ever branch of manufacture. A French design not in the ordinary Renaissance, is almost a curiosity: we certainly do find French examples of Greek, Gothic, and the now generally discarded Louis XV., but they are the rare exceptions. No skill of execution can ever atone for such excessive mannerism as this. The wide-spread influence of France, in spite of the most debased taste in design, the Rococo, is one curious picture

presented to the mind by this assemblage of the world's industry.

Another great fact displayed, perhaps unavoidable where true education is absent, is the very general mistake that quantity of ornament implies quality. In the Oriental works, where quantity of detail is also the chief characteristic, it is of a kind so generally unassuming in its details, and harmonious in its effect and treatment, that the impression of quantity itself is the last that is conveyed, though the whole surface may be covered with ornament. We find the best specimens of ornamental design, as a class, are of the Renaissance, but the great bulk are of the Louis XIV. varieties: classical art is scarcely represented, and the Gothic is only very partially so. We have, indeed, only three decided expressions of taste, the Classical, the Renaissance, and the Louis XV., for what we have of the Gothic we owe to sentiments distinct from ornament. These three tastes are very distinct: we have in the first, the classical or Greek, a thoroughly well understood detail, with a highly systematic and symmetrical disposition of these details: in the second, in the Renaissance we have also a well understood detail, but a prevalence of the bizarre, and of a profusion of parts; great skill of execution, but a bewildering and fantastic effect upon the whole; in the third, the Louis XV., we have a total disregard of detail, therefore a purely general effect. And this I believe to be a fair picture of the present general state of ornamental art in Europe, a condition out of which it is the task of the schools of design to extricate it; and if we may judge of the fruits of the French schools, it would appear the especial province of the English schools to perform this service; for the uniform practice of the French seems to show that they are too much absorbed in the execution of details, to give any great attention to distinct varieties of ornamental expression. If a general inferiority in design must be admitted, on the part of England, it is much less in the application than in the taste and execution of the design

itself, irrespective of all style. However, in the more magnificent foreign productions, especially those of France, there is a disregard to usefulness, or the general wants and means, which very much detracts from the high credit the execution of the work would otherwise ensure. It would be no distinctive feature of the age to work well for princes: princely means have secured princely works in all ages; and the Exhibition will have done nothing for this age, if it only induce a vast outlay of time and treasure for the extreme few who command vast means. While the efforts of England are devoted, for the most part, to the comfort of the many, France has expended its energies as positively over luxuries for the few: it is an amalgamation of the two that we require,—fitness and elegance combined.

When a costly work, however, is distinguished by exquisite taste, it is something more than a specimen of costliness, and a skilful work will be beautiful, not by virtue, but in spite of its materials. Good taste is a positive quality, however acquired, and can impart such quality in perfection to even the rudest materials: it is taste, therefore, that must ever be the producer's most valuable capital, and it is a capital that the English designer and manufacturer may very materially accumulate by a careful inspection of some of the more important foreign contributions in the Exhibition. I have only, then, to again caution you, that notwithstanding the unrivalled display of magnificence now assembled from all quarters of the world in Hyde Park, the great art of the ornamentist is still only partially represented, as compared with the aggregate of past efforts and achievements; that great styles, individually capable of as much display and variety as the whole of this unique collection together offers, are barely touched upon; that this vast store is at the student's feet, to be gathered into his granary, as the meadows spread their honey before the bees, if he will only extend his search beyond the reach of his hands. The time has perhaps now gone by, at least in Europe, for

the development of any particular or national style; and for this reason it is necessary to distinguish the various tastes that have prevailed throughout past ages, and preserve them as distinct expressions; or otherwise, by using indiscriminately all materials, we should lose all expression, and the very essence of ornament, the conveying of a distinct æsthetic impression on the mind, be wholly destroyed. For if all objects in a room were of the same shape and details, however beautiful these details might be, the want of individuality would be so positive, that the mind would soon be fatigued to utter disgust. This is, however, exactly what must happen on a large scale, if all our decoration is to degenerate into a uniform mixture of all elements, or if we allow any one class of elements to engross our exclusive attention: either in the one case or the other, nothing will be beautiful, for nothing will present a new or varied image to the mind.

TEACHINGS OF THE EXHIBITION.

For the following remarks on the instructive nature of the Great Exhibition, we are indebted to the columns of *The Builder*.

It is, indeed, something to have entered that huge hive of the industry of all nations, and to have carefully examined its stores of intellect contributed by all quarters of the globe; to have seen the ingenuity that has been applied to productions of every kind more or less distinguished by their peculiar merits, and valued either for their elegance, their grandeur, or their utility, and to have noticed the diversity of thought and intelligence with which the genius of every country has displayed itself. Among its multiplicity of objects, every faculty of the mind is appealed to, as every faculty has therein been exercised; every taste is presented with the best specimen of whatever is its favourite subject for study; every form that it was possible to devise in order to gratify the desire of the fastidious or supply the wants of the wealthy, meets us; and every species of art and mechanism, simple or

elaborate, is here brought to its highest degree of development. The student who is yet unknown—the man who has long exercised the fine skill of his hands—the mechanic and the artisan, each, amid the wonders enshrined in this palace, can add to his knowledge and to his experience. Such a living encyclopædia as this is a means of instruction, a lever of education, that was long wanting to the solitary and unassisted student, who, being ignorant of what former ages and countries *had done*, could not tell what it was in the power of mind *to do*. The fragmentary and scattered forms in which knowledge was conveyed to him served rather to bewilder than enlighten. The present sons of industry have not, however, to bewail this deficiency, nor to labour under this disadvantage; a glorious edifice being now open to them condensing all the discoveries of science, and all the conquests of the mind.

It is in this Exhibition that all see fresh motives to industry, and further inducements to excellence. The opportunities it offers for study to visitors in general, considering how much knowledge, artistic and mechanical, natural and artificial, must come by sight, are not to be slighted; but the professional carver, sculptor, and draughtsman, appreciate the opportunity it offers to them for directing their talents. To all engaged in the arts, it is a standard for correcting and advising such as have bent their minds in a wrong channel, or seen with imperfect eyes; who have made a bad use of their powers, and not employed them in the direction to which they were naturally inclined. Let all such profit themselves by comparing what they *have done* with what they *might have done*. This is one of the great teachings of the Exhibition. It is, we think, indisputable, that all may at least inform their minds by the contemplation of such accumulations of beauty and magnificence. Even they who do not seem to have any interest for such things, will go away impressed with ideas new and uncommon; with feelings, likely, perhaps, to refine their natures, more than those of a different character, to which they are every day

familiar; and wherever there exists the capacity to receive the influences of this place and its contents, noble ideas will assuredly be admitted into the mind of the recipient. And whilst, in an industrial and manufacturing point of view, the effect of this Exhibition will be beneficial, it at the same time is calculated to work moral results, which are of great importance from their bearing upon and being conducive to eminence. Whoever enters this spacious and splendid pile with notions of vanity or arrogance, will certainly receive a check and a cure—he will feel his littleness by the superiority that surrounds him everywhere, to which he will be forced to make comparison. This is a useful teaching indeed. Whoever, also, hopes for those triumphs of hard-working and patient labour at which he gazes, will be induced to work himself with greater earnestness than heretofore, to qualify himself for the abilities necessary for their attainment. Whoever thinks he is great in criticism, and can make or mar a reputation, will experience the difficulty there is for the best trained judgment deciding between the conflicting and distracting pretensions of such a vast variety of objects. Here is another great teaching; and with it an argument, if one were needed, in favour of this museum of all nations, and for repeating attempts of this kind, even on a smaller scale; for thousands who have not the inclination to form their judgments and modulate their feelings to works of art and ingenious fabrications through books and the theories of men who comment and criticise upon them, would yet put themselves to some personal trouble and inconvenience for seeing and judging for themselves such a pile with such attractions. And it cannot be denied but that they are under the best tuition. Beautiful works proclaim their own merit, and force conviction. They have the force of examples seen by the eyes over theories read unwillingly by the mind. They *show* the substance of true taste, and what it is: your critics and books can only *tell* it.

CHAPTER XXIII.

VOLTAIRE IN THE CRYSTAL PALACE.

RAILWAY TRAVELLING—REFLECTIONS ON THE STEAM ENGINE
—THE PLOUGH AND THE PRINTING PRESS—ANCIENT AND
MODERN CITIES—JEWELS AND GLASS BEADS—ITALIAN AND
ENGLISH SCULPTURE—FRENCH TASTE—THE MÆDIEVAL COURT
—LUCIFER MATCHES—THE TIMES NEWSPAPER—FIRE ARMS
—MODEL OF A PYRAMID—PRINCE ALBERT'S MODEL LODGING
HOUSES, ETC., ETC.

"Millions of spiritual creatures walk the earth
Unseen, both when we wake, and when we sleep."—*Milton.*

SUCH is the declaration that the immortal bard puts into the mouth of our great progenitor. And our old friend, Christopher North, bears evidence, in one of his learned lucubrations, to the truth of the statement, inasmuch as he testifies from ocular experience, to the appearance, within the walls of the Great Exhibition, of a *revenant* of considerable celebrity in the world of letters. We allude to the philosopher of Ferney, the shrewd, the keen, the inquiring, the sarcastic Voltaire. In fact, our neighbours north of the Tweed have always been celebrated, not only for the keenness of their optics for the second sight, but also for their prompt recognition of ghosts and wraiths of every description. Hence we readily enter into the statement of our contemporary respecting the appearance of this sceptical personage, who, it seems, was resolved to ascertain for himself the truth of the wonderful accounts he had heard of the Crystal Palace, whether in the regions above or below we do not take upon ourselves to inquire. "It was impossible," says our friend Christopher, from whose columns we extract the following passages, "to keep him quiet—there would have been no peace in the shadowy regions of the departed, unless this energetic, inquisitive, self-willed spirit, had been allowed to have his own way; and Voltaire, rising to the earth in the city of Paris (where else could his spirit rise?) started by train to

see the Great Exhibition. Reports had reached him that in a Crystal Palace, not far from the Thames, were to be assembled specimens of the industry of all nations—nothing less than a museum of the works of man. But it was not this only that had excited the curiosity of the philosopher of Ferney. Rumours of a new era of society, of unexampled advancement or development of mankind, had from time to time descended into the territory of the shades, and had kindled a desire to revisit the earth. * * “Progress! progress!” muttered our returned philosopher to himself, as he whirled along upon the railway. “What a din this age makes about its progress! it travels fast enough, if that were all. Rapid progress of that kind. For the rest—let us see whether the world is revolving in any other than its old accustomed circle.”

After taking a brief survey of the building itself, and expressing, in various muttered ejaculations, his admiration of its marvellous size, its lightness, and its wonderful adaptability for the purpose for which it was erected, the quondam lord of Ferney proceeded to the department where the machinery was exhibited. Here a professor of mechanics was so courteous as to explain to him the various processes of our cotton manufacture. He explained the power-loom, the mule, and I know what other contrivances beside; and, pleased with his intelligent listener, he launched forth into the glorious prospects that were opening to human society through the surprising mechanical inventions that had illustrated our age. To labour man was born, he said, but we should take the sting out of the curse; it then would cease to be toilsome, cease to be degrading, cease to be incompatible with refinement of manners and intellectual culture. Stepping through an open door into a neighbouring department, the professor found himself in the presence of a gigantic locomotive standing upon its railway. “Here,” he exclaimed, “is one of our iron slaves; we feed him upon coal; he bears us a thousand at a time, with the speed of an eagle, from town to town, from county to county. What limit can

you set to human progress when you reflect upon such an engine as this?" Voltaire did reflect. "Very clever are you men," he said; "you cannot exactly fly—you have not yet invented wings—but you go marvellously fast by steam. No spirit need travel quicker. But methinks there is something hypocritical and deceptive in this obedient engine of yours. Goes of itself, you say. Does it? Your iron slave wants many other slaves, unfortunately not of iron, to attend on it; on this condition only will it serve you. No despot travels with so obsequious a train, and so subservient, as this quiet-looking engine. Putting my head out of the window of my railroad carriage, whilst we were yet at the station, I saw an industrious mortal going from wheel to wheel with a huge grease-pot, greasing the wheels. He greases wheels from morning to night; eternally he greases. Another man trims lamps incessantly; I saw him with a long row before him feeding them with oil; in oil he seems himself to live. Of engineer and fireman I could not catch a glimpse, but I saw a crowd of men employed continually in putting boxes and carpet-bags from a truck into a van, and from a van into a truck. Not much intellectuality there. And when the shrill whistle was heard, and we started, lo! there was a living man standing on the bank, acting as signal-post—with arm outstretched and motionless, a living signal-post. Most useful of men no doubt, if mortal necks are worth preserving, but his occupation is not such as could possibly be intrusted to one who might wander into reflection. The railroad train runs, it seems, not only upon those hundred wheels of iron which we see and count, but on a hundred other wheels forged out of human flesh and blood."

"You are perfectly right," said a pale melancholy Englishman who was standing beside them, and had overheard this conversation. "We are altogether in a wrong course; we are making machines that enslave ourselves, and bind us down to all the toils and all the social degradations of slavery. We must go back to simplicity. We must learn

to limit our desires, and discard fictitious wants. Then only can the reign of Justice commence. If all men were contented with the gratification of the simple wants of nature, all men might be equal, and equally enlightened. Our task ought now to be not to invent more machines, but to select from those already invented the few that are really worth retaining. For my part, I find only two that are indispensable." "And what may they be?" said the professor of mechanics, with a smile of derision. "The plough and the printing-press. With these two, and the principle of justice, I would undertake to make a happy community of human beings. Bread and books! what more do we need? Here is supply for mind and body." "No! no! no!" exclaimed Voltaire, who retained all his horror of this return to primitive simplicity. "Get as much civilisation as you can. Let as many enjoy it as can. If you had nothing but the plough, you might dispense with your printing-press as well. What on earth would your rustics have to write about? Bread and books! and what sort of books? Bread, books, and an Egyptian priestcraft—pray complete your inevitable trio." "Sir, you blow hot and cold with the same mouth. Our mechanical inventions are but rivetting their fetters on the industrial classes: you see this; and yet when I would break the machine you interpose." "He who talks on man must blow hot and cold with the same mouth. He has always lived, and always will live, in the midst of contradictions. Let us hear nothing of this return to simplicity and ignorance. No savage happiness for me. The Fuegians—so a traveller from South America once told me—when they are hungry, kill a buffalo, and, scraping the flesh from off the bones, make a fire of these bones to roast the flesh withal. What admirable simplicity in this self-roasting ox! Here is your golden age at once. I recommend to you a voyage to Terra del Fuego." "Are we, then, said the plaintive idealist, "to see nothing in the future but the contradictions and turmoils and iniquities of the past?" "And

what men endured in the past, why should not you also and your posterity endure? The type of civilised society has been again and again presented upon the earth: we may improve, we cannot materially alter it." "There," said the professor of mechanics, "I must be allowed in some measure to differ from you. I observe that you have a due appreciation of the arts and inventions that contribute to civilisation; but you do not sufficiently understand the enormous progress that this age has made beyond all others." "Pooh! pooh!" said his impatient auditor, "there is a vast difference between civilised life and savage, but the progress you make afterwards is but slow and slight. You take a wild country, and from a swamp reduce it to a cultivated plain. Corn is growing in the field. The change is immense. Well, you may grow still more corn in the same field, but you can never produce any other change like that which it has already undergone. Between the wild Celt or Saxon, and the civilised inhabitants of Paris or London, who would not acknowledge the difference? But I would as willingly have lived in the Paris of a hundred years ago, as in the Paris of to-day. A wealthy citizen of Bruges or of Florence in the fifteenth or sixteenth century passed, I suspect, as rational, as agreeable, and as dignified a life as the wealthy citizen of your own monster metropolis in the nineteenth century. He would not enjoy quite such immense feeding—not such luxurious banquets as your Guildhall and your Mansion-house can boast, where you spend as much at a dinner as would have built the Parthenon—but he, perhaps, found a compensation in a keener zest for art: at all events he lived in a city which had not quite blocked out every charm of nature, in which every green thing had not withered, and where the sky was still visible. At Athens and Rome, and, for aught I know, at Babylon and Thebes, men have enjoyed life as keenly, and lived as wisely as they do here. Many are the eras of the past where you may point to the *city*, the seat of government and the arts, and the neighbouring cultivated *country*

where the peasantry have enjoyed the protection, and shared to some extent the mental culture, of the town. Such has been the type of civilised society hitherto; nor is it always that the last instance in order of time presents the most attractive picture.

"I walk," he continued, "through the spacious streets and squares of London. I see the residences of your wealthy men: the exterior is not pleasing; but if I enter, I find in each what deserves to be called a domestic palace. In these palatial residences, many a merchant is living amongst luxuries which no Roman emperor could have commanded. I lose my way amidst the dark, noisome, narrow streets and interminable courts and alleys of this same London. Each house—each sty—swarms with life. And oh, heaven! what life it is! They are heaped like vermin. They prey upon each other. How they suffer! how they hate! Full of corroding anxieties, they endure a wretchedness and torture which no Roman emperor could have inflicted upon his slaves." "But, sir—" "I tell you I have seen the beggar at Naples. He is a prince. He lies in the sun, on the earth—it is his home—and the open sky above him, it is his. He rises to beg, or to work, or to steal—he does either with a savage energy—then lies down again, no leopard in the forest more carelessly disspread. But poverty in England is steeped to the lip in bitterness, in care, in hatred, in anxiety. When bread comes, it is eaten with fear and trembling for the future. Tears are still flowing upon it. Yes, you have indubitably progressed thus far: you have made hunger reflective." "But, sir, we are at present in a state of transition. Say that hunger has become reflective: in the next stage of our progress the reflective man will have protected himself against the chance of hunger." "A state of transition! I am charmed with the expression. What age ever existed that could not have accounted for all its sufferings by this happy word, if they had known it? Oh, the world, I think, will be very long in a state of

transition! But, gentlemen, we must use our eyes, as well as other organs—however gratifyingly employed—in a place like this. Pray, what is that,” he inquired, as they stepped into the central avenue of the building, “round which so eager a crowd is collected?” “That is the great diamond—the Koh-i-noor, as it is called—once the boast of some Great Mogul, now the property of the Queen of England.” “Oh! And what is that to the right, where a crowd almost as dense is congregated?” “They are the jewels of the Queen of Spain.” “And on, further to the left, I see another crowd into which it is hopeless to penetrate.” “They surround the blue diamond, that has been valued at I know not how many thousands of pounds.”

“The children!” cried Voltaire. Then turning to his professor, he added, “You who will make all classes reflective, pray begin with these gentlemen and ladies. When your celebrated navigator, Captain Cook, visited the savage islanders of the Pacific Ocean, he gave them glass beads in exchange for solid provender. We smile at the simple savages. They were reasoning philosophers compared with our lords and ladies. The glass bead was not only a rarity; it was a novel and curious production to the savage. A precious stone is no longer a novelty to any of us; and for the very important purpose of personal ornament it may be easily imitated or substituted. I defy you to find another element than simple ostentation in the extreme value we put upon our glass beads. They are merely the insignia of wealth. The children!—but men always have been, and always will be, children. I have frequently said it of my own Parisians, and, between ourselves, never liked them any the less for their being the most perfect children on the face of the earth.”

Our visitor moved on to that end of the building which, to us, bears the name of the foreign quarter. He was not a little surprised to see the extremely tasteful and artist-like display which Austria and Bavaria made. A certain Parisian, thought he, once asked if it was possible for a

German to have wit ; at all events no one will ever ask whether it is possible for a German to have taste. And the descendants of his favourite, Czar Peter, did not fail to attract his attention. They, too, are running a race of luxury and civilisation. He entered into the little sculpture gallery of the Milanese and other Italians. There was the usual medley of subjects which a sculpture gallery always presents. Eve, the Christian Venus—Venus Repentant, as she might be called—here has a charming representative. Not only the expression of the face, but of the whole attitude, tells the sad history. She sits looking down, and shrinking within herself, as if she would contract herself out of sight, if it were possible. Opposite is a head of Christ. Our critic paused with reverence before it ; but an involuntary smile rose to his lips, as he observed that the artist, in his endeavour to make the head more and more placid and patient, had at length sent it fairly to sleep. Near it were Leda and her Swan, and Danæ waiting for her double shower of love and gold. Such is the medley we are always doomed to encounter in any collection of sculpture !

From this Milanese gallery he hastened to the room devoted to English sculpture, that he might compare the genius of the two nations. The sculpture of the whole Exhibition—that which is displayed as pure art—is but of a secondary character ; but our visitor found as much to please him in this room as amongst the Italians. Here were the lost children in the wood, whom the little birds covered with leaves. The poem is known throughout Europe, and the artist has translated it most faithfully into marble. Here is a mother or a nurse with a child, the child they call Bacchus ; and Voltaire recognised with delight the Ophelia of Shakspeare. Here she stands, leaning on the branch that will treacherously precipitate her into the stream ; and the artist has, with singular felicity, succeeded in portraying, not only the beauty and the sorrow, but the bewildered mind of the love-lorn damsel. In the corner stood a head, designated *Il Penseroso*,

which, if the police had not been so vigilant, our visitor might have been tempted to purloin. Traversing the building, he soon returned to that part where his own countrymen especially make so great a display with their jewellery, their bronze clocks, the gilt ornaments of every description, their silks and velvets, and every article of luxury. He kindled for a moment with a sentiment of patriotic pride, as he noticed here the eminent position of his own France. Seeing so large a display of these articles, he asked one of his countrymen what could have induced him and others to bring so great a number of these costly products across the Channel. What could have been the motive, he asked—was it honour or was it profit? “Both,” was the reply. “We bring to exhibit, and we bring to sell. It is pleasant to take the conceit out of our neighbour, and his money at the same time.” “But what has induced your neighbour to invite you here, with all these splendid silks and trinkets?” “*Ma foi!* I know not. Perhaps he wanted a lesson in good taste, and was willing to pay for it. If you look down the building you may catch, even at this distance, a glimpse of the gewgaw splendours of Birmingham. With an unlimited supply of tinfoil, a North American savage would do better.” “Ha! monsieur, you must instruct your neighbour, and he, as is just and fit, will pay for his instructions.”

Voltaire had no sooner ceased speaking than he found himself revolving a more serious train of thought. He sat himself down on a bench, and surveyed as much as he could, at one glance, of the whole building and its contents. “The industry of all nations!” thought he. “It is well; but what I see here most prominent, is the luxury of all nations. Did England really need a lesson in luxury? And if her taste in jewellery and upholstery has been defective, is any very great end answered by highly cultivating such a taste? What other countries may learn from England I know not; but she herself can learn nothing from this Great Exhibition but the lesson

my countrymen are so willing to teach her: she can learn only how to spend her money in objects of luxury, in what they call ornamental and decorative art. Pure art I honour;" thus he continued his soliloquy. "I honour all the fine arts. From the man who designs a temple to him who engraves a gem; I honour all who contribute to the cultivation of the mind through the love of the beautiful. Men must have emotions for the soul, as well as food for the body; and if they do not find these in poetry, in music, in painting, they will seek them exclusively in those gloomy superstitions which afflict while they agitate, and render men morose and uncharitable. I honour the arts, and I respect also every useful manufacture which adds to the comfort of daily existence; but there is a province of human industry lying between these two, which is neither fine art nor useful manufacture, which I do not honour, for which I have no respect whatever—ornamental nonsense for which I feel something very near akin to contempt. Men decorate their houses and their persons with costly fooleries. I put my elbow on the mantelpiece, and am in danger of precipitating some china mannikin. Huge vases encumber the floor, which never held, and never will hold, anything but the chance dust that is swept into them. Absurd tables are set out to be covered with knacks and toys, that have not even the merit of amusing a child. The fingers are squeezed into rings; holes are made in the ear for the jeweller's trinket; there is no end to the follies committed in what is called decoration and ornament. Say that such things must be, is it a purpose worthy of the energies of a great people to increase and spread abroad the taste for fantastic upholstery and useless china, and all the imposing splendours of the haberdasher and the silversmith? Is it a very magnificent project to invite competitions in lace and embroidery, and or mou, and all the sumptuous trivialities of a lady's boudoir? Art! art! exclaims one. Do you value as nothing the art bestowed on these articles? Not much. If you model a human figure, of man or

woman, let it be done for its own sake. A true work of art is a sufficient end in itself. Must I have the human figure scattered everywhere upon every utensil I possess! Can I not have a time-piece but a naked woman must sprawl upon it? Is this doing honour to the most beautiful of forms, to make it common as the crockery or drinking cup it is called in to ornament? Must it support the lamp upon your table, or be twisted into the handle of a teapot? If I pour water from a ewer into a basin, must I seize a river-god by the waist? Have you nothing better to do with the head of a man than to model it upon every prominence, fasten it upon the lid of your coffee-pot, or squeeze it under the spout of your jug? In all this taste I find little else than mere ostentation. Would you have sumptuary laws? says one. No; but I would have a sumptuary opinion, if there was any getting it."

A part of this soliloquy had been unconsciously uttered aloud. "It all does good for trade," said a bluff neighbour who had overheard him; "rich men should spend their money." "Not exactly upon absurdities, I suppose." "Anyhow they should spend their money. I am a tradesman—a Manchester man; I care nothing for these fine things myself, but I say, that rich men ought to spend their money." "And whether the articles can be of the least service to them or not?" "It does good for trade all the same." "Not all the same. Suppose he lent it to a respectable capitalist like yourself, a Manchester man, who would employ it in some useful manufacture, in multiplying articles of substantial service to mankind, of which there is still by no means a superfluity, would not this be doing good for trade, and in a better manner?" "Ay, ay! and bring him a good per centage for his money. You are right there. Beg pardon, sir, but you are not such a fool as I took you to be. Let the nobleman have his grand house and his garden, his pictures and statues, but if he has more money than he knows what to do with, let him lend it to the industrious capitalist, who will multiply useful things for the community at large.

Profits, to be sure, would be somewhat less, but everything would be cheaper. I see, sir, you are no fool."

Voltaire, bowing in acknowledgment for the compliment he had received, rose and threaded his way through the crowd, passing the gold and velvet of Persia and Turkey and India, and not forgetting to pay his respects to the Chinese. Other people cultivate the beautiful, or intend to do so; it is fit, thought he, that there should be one people who cultivate the ugly, the monstrous, the deformed, and with whom the grotesque stands in the place of the graceful. The elaborate trifling in their ornamental carvings in wood and ivory, secures them, however, a high position in this industrial Exhibition.

What our visitor thought of all the various works of art he encountered, as well gigantic as minute—the Amazon, the lion, the archangels, who in several places are killing Satan, or the dragon, with the utmost calmness, and with the least effort in the world, it were too long to tell, even if his criticisms were worth preserving. We follow him into what is called the Mediæval Court. Here altar and crucifix and sacred candlestick, and all the paraphernalia of Roman Catholic worship, arrested his attention, and somewhat excited his surprise. Well, said the philosopher to himself, I have always remarked that the spirit of trade is an admirable counterpoise to the spirit of bigotry. I have heard of the English people making idols for exportation to heathen countries; dealing with them as articles of commerce. They despatch a vessel to some barbarous coast, and in the cabin they carry out a missionary and his tracts, to convert the inhabitants, and in the hold they have an assortment of idols from Birmingham to compete with the native manufacture. Nothing so liberal as the spirit of trade. Now, here these English Protestants are making what they think most superstitious implements for the benefit of some Roman Catholic neighbour. "Pray," said he, addressing a sleek stranger, whom he thought likely to give him the required information, "Pray, for what country may these be intended? France

can supply herself; to what people do you export them?" "Hush! They are not for exportation," said the grave gentleman, casting his eyes down upon the ground, and speaking in a plaintive and subdued voice. "They are for the English themselves." "But the English are Protestants." "Say rather Anglo-Catholics. But they are returning, slowly and doggedly, to the true fold. You, who are a foreigner, will be rejoiced to hear this." Voltaire took largely of his snuff. "If it pleases you, I will be rejoiced. They will read my *Cyclopædia* now. At last I shall be understood in England." * * * *

Our philosopher now makes his escape from his theological friend, and again plunges among the machinery, where he still finds his professor of mechanics, with whom he enters anew into learned disquisition; in the middle of their argument, however, the professor, for some incidental purpose, lit a common lucifer match. Voltaire had never seen the like before. He begged the experiment to be repeated. He examined the simple apparatus minutely; and asked for the old flint and tinder-box, that he might make comparison between them. They smiled at him. Such a thing did not exist.

"Here is an invention," he cried, "which, as a real contribution to the comfort of life, far surpasses everything I have seen. Oh Lucifer! as they call thee, thou son of the morning, if I had had thee in a box by my bedside, how many hours should I have saved! how much anger and impatience should I have escaped! and François, how thy knuckles would have been spared! Verily, this is the greatest invention that has been made in the world since I—" But seeing that he was attracting to himself a degree and kind of attention from a staring and tittering audience, that was by no means agreeable, he broke off. Meanwhile, the professor, who talked on as incessantly and unweariedly as if he too were set in motion by the steam-engine, had already commenced his eulogium upon another instance of our mechanical invention.

This time the machine was one calculated to interest

Voltaire. It was a printing-press of the latest construction, worked of course by steam. He saw it in full operation. The type was arranged upon a large upright cylinder; four smaller cylinders, placed around it, bore the paper and carried off the impression from the types. At every revolution of the large cylinder, four sheets of printed paper were consequently delivered, for the edification or amusement of the world. Our ex-author watched the process, and was very much disposed to call for pen and paper, that he might give some *copy* to the machine. The professor continued his oration. "By a machine of this description, but of still greater power," he said, "the *Times* newspaper is printed, I tremble to say how many thousands in an hour. Each paper contains matter that would fill an octavo volume. The debates in parliament that may have been heard at two o'clock in the morning, are that same morning laid on the breakfast-table of the country gentleman who is residing one hundred miles from the House of Commons. And not only have the speeches been reported and printed, but they are accompanied by well-written comments of the editor. Wonderful celerity!"

"I hope," thought our listener, "that the orations are equally wonderful. They should be. From what I remember of such matters, I think I could wait a few more hours for them without great impatience; and perhaps the well-written comments would not suffer by the delay." Quitting the lecturer and the scene of his glory, Voltaire mounted the gallery. Here he encountered what, for a time, entirely subdued the captious spirit, and called forth all the natural energy and enthusiasm of one who had been poet, wit, and philosopher. This was the electric telegraph. He could scarcely contain his enthusiasm as he watched the index on one dial-plate, and saw the movement responded to by the index of a corresponding dial, and reflected that no conceivable length of distance would render the operation less certain or less instantaneous. Thought travels here with its own rapidity; manumitted

from the trammels of space and time. Yet, after all, he added, it can be but human thought that travels on the wire.

Stepping on a little further, he found himself surrounded by improved fire-arms, muskets that would kill at the distance of five hundred yards, and many-barrelled pistols, which promised to deal half-a-dozen deaths in as many seconds. The cynical humour returned. "They are not all messages of peace and love," thought he, "that yonder electric telegraph will be employed to communicate. The old game of war is played at still, and, like the rest, duly provided with improved implements. And what is it I read on this label? 'A pair of duelling pistols.' Duelling, by the law of England, is murder. It must be a very dead law, when, in this industrial exhibition we have 'duelling pistols' thus distinctly labelled. 'Pistols for committing murder!' would have been rather a startling designation. It seems, therefore, that, in the public opinion, duelling is just where it used to be, just the same honourable custom, where men contrive to mingle in exquisite proportions the foolery of coxcombs, and the ferocity of savages. The progress seems to be all in the mechanical department."

Our hero next encounters a Socialist and a member of the Peace Society, with whom he has a long and animated discussion. With his usual volatility, however, he abruptly breaks away from his adversary, and nimbly retraces his way along the gallery. In his haste he entered, unawares, into a wooden case, or closet, where there was exhibited an anatomical model, in wax, of the human figure. It was the size of life, and stood upright, with the breast laid open, exposing for convenient inspection the heart and liver, and all the other great viscera of the human frame. "Ha! ha!" he cried—"No change here. The same as ever—heart, stomach, and the rest of us; the same creature they laid in the pyramids, and burnt upon the shore, and deposit now in deep holes in the earth. No alteration here. Oh, those bowels! how often did they afflict me!"

Apropos of burying, he was involved soon after in the

examination of a new design for stowing away the increasing multitude of our dead. It was the model of a pyramid, to be erected of the same size as the greatest of the Egyptian pyramids, but to be erected after a very different fashion. For whereas the ancient pyramid was an encasement of stone enclosing the coffin of one man, in the modern pyramid every stone might be said to contain its dead. The area would be first covered with vaults built close to one another, on these a second area of similar vaults would be constructed, on these a third rising gradually to an apex. The project had something in it to please a reflective mind. How the two structures would contrast—the despot's pyramid and the democratic pyramid! What admirable types they would form of the two forms of society, the memory of which they would severally perpetuate! In the one a people of slaves build an enormous mausoleum for one man, who is, as it were, a representative of the whole; in the other, a nation of free-men construct an eternal monument for themselves, simply by each man lying down in his place as he is called. * * *

Spirit as he was, our visitor at length began to find himself exhausted by the multitude of objects which solicited his attention. He had seen enough, he thought, for one visit. But in quitting the Crystal Palace, the model lodging-houses erected by Prince Albert caught his eye. "This Prince Albert!" thought he; "I hear a great deal of this prince, and from all I hear there has not been on or near a throne, for many an age, so intelligent and accomplished a man. One must go very far back in the annals of England to find his parallel. This prince has equal intelligence and far more knowledge than my Frederick of Prussia, and Frederick could be a—— But I have forgiven him. Moreover, I had my revenge; after which one very sincerely forgives. Into these lodging-houses that bear the prince's name I must make some inquiries." He did so, and that with a rapidity and acuteness which soon put him on a level, in point of information, with the rest of the spectators. A prospectus for the society for build-

ing a better order of houses for the workman and the peasant was put into his hand. It did not fail to meet with his most cordial approbation: it was a scheme of judicious philanthropy worthy of its royal and enlightened patron. As he was withdrawing his foot from the step of the model cottage, he met, for the third and last time, the professor of mechanics, who here also was indefatigable in explaining and developing. Observing Voltaire, whom he now regarded in the light of an old acquaintance and antagonist, he determined to push the advantage which their present subject of examination gave him, and he enlarged triumphantly on that philanthropic desire which had lately sprung up in the higher and middle classes of the community, to improve the condition of those who occupy a lower place in the social scale. * * * A hot dispute follows, in the course of which the professor becomes extremely irritable, and at length was about to overwhelm his ghostly antagonist with a burst of honest indignation, when he discovered, to his surprise, that his opponent had vanished from the scene. Voltaire went back quite contented that he had lived in Paris a century ago.

CHAPTER XXIV.

MODERN PORTRAIT PAINTING — ITS DEFICIENCIES — PRÆ-
 RAPHAELITES — PORTRAIT PAINTING IN QUEEN ELIZABETH'S
 TIME — WINTERHALTER'S PORTRAITS OF THE QUEEN AND
 PRINCE ALBERT COPIED ON CHINA — BRIEF MEMOIR OF THE
 QUEEN AND PRINCE ALBERT.

PORTRAIT PAINTING in modern times has undergone a considerable change; rigid truth has been laid aside for flattery, individuality has been generalised, age concealed, and all prominent peculiarities softened down and almost

obliterated; plainness of features, though stamped with intellect, is abhorred by modern art as a crime, and must not be represented, so fastidious has the age become. Perhaps it will be one of the best results of the Præ-Raphaclite school to bring back the style of our leading portrait painters to the sobriety of truth. We want the express image, the *alter idem*, of such personages as are eminent in rank or talent, with all the sharpness of nature's coinage impressed upon the visage. If we have lost in one respect, however, we have gained in another—we have improved in elegance and simplicity; we no longer bedeck our female portraits with all the feathers, and lace, and pearls, and jewellery that it is possible to load them with; neither do we pourtray our belles as Dianas arrayed for the chase, as Bellonas with spear and helm, or as piping shepherdesses with a lamb and crook. Let us peep into Hampton Court, and see the Virgin Queen, exhibited in every stage of life from infancy to age, and loaded alike in all with extravagant profusion of dress and ornament. At the same time the artist was rigidly exact in point of resemblance. It is curious to observe the difference between the poets and the painters of that period in their descriptions of royal personages. While the former launched out into the most extravagant praises as to their personal charms, their youth, their beauty, and their noble qualities, the latter, severely true, represented them precisely as they were. From the poetry of Spenser, Sir Walter Raleigh, Sir Philip Sidney, and others, one would imagine the beauty of an Aspasia outrivalled, the graces of a Helen eclipsed. But Holbein and Zuccherro have given us very different ideas; they have faithfully and honestly done their best to immortalise the lineaments of their royal mistress, in colours as true as they deserve to be lasting. We feel grateful, too, that bluff old Harry had no courtly flatterer—no Sir Thomas Lawrence of the day—to soften down, to generalize his stalwart proportions, or to idealize his countenance. He stands before us with his bold swagger, and all his characteristic qua-

lities, such as they were, unmistakeably delineated in his features. Again, in the cold and unbending severity of the "Elizabeth" of the same painter, who can recognise the "Gloriana" of Spenser, the unrivalled paragon of perfection, so celebrated in the poetry of the times. In fact, in his courtly adulation, in his disregard to truth, the portrait painter of the present day has lost ground, instead of advancing in his art, and will, consequently, have less claim upon the respect of future generations, who would prefer, one would imagine, to see their ancestors as they really looked and moved, and not as if their features were softened down and corrected according to Gay's precept in the fable, from the Apollo and the Venus in the studio of the painter. But it is time for us to leave the court of "Gloriana," and that of her august sire, and turn our attention to our own gracious Sovereign, whose portrait, with that of her illustrious Consort, we have the pleasure of presenting to our readers. They were both objects of much attraction in the Crystal Palace, and were painted on china, after the originals, by Winterhalter; that of the Queen having been executed by Madame A. Ducluzeau, and its companion by M. Antoine Beranger, of Paris; and to both of these artists was awarded the honourable distinction of a prize medal. As a fitting accompaniment we subjoin a brief memoir of the illustrious pair.

The language of eulogy, when applied to kings and queens, generally becomes a direct falsehood, or subsides into unmeaning commonplace. The graceless Charles II. was "our most religious king." The royal libertine, who spurned from his home and heart, and consigned to an early grave, the wife he had sworn to cherish and protect, was hailed as "the first gentleman of the age;" and thus it has ever been. In the eyes of the world the graces of royalty amply compensate for its vices. When royalty is spoken of, the language of flattery only is heard; the censor speaks with bated breath. And thus the difficulty is increased when, as in the case before us, the voice of praise is but the voice of truth.

In our sketch—as is but right—we must give the first place to our Sovereign Lady, Queen Victoria. The incidents of her life may soon be told. Her father was his Royal Highness Edward Duke of Kent, fifth child of George III. Her mother was Victoria Maria Louisa of Saxe Coburg Saalfeld, and was born at Coburg on the 17th of August, 1786. In her sixteenth year this amiable princess became the consort of the hereditary Prince Leiningen; but after the birth of two children she became a widow, and was married to the Duke of Kent on the 29th of May, 1818, with all due splendour, at Coburg, in conformity with the Lutheran rites. The illustrious couple immediately set out for England, and on arriving at Kew palace, the marriage ritual was again performed according to the service of the Church of England. “This,” says a writer in the *Annual Obituary* for 1821, “must be allowed to have proved a fortunate, for it was a happy union. They exhibited towards each other the most marked attention and regard.” The result of this union was the birth of her most gracious Majesty Queen Alexandrina Victoria the First. In eight short months the mother was again a widow. The Duke of Kent expired on Sunday, the 28th of January, 1821, one week previous to the demise of his royal father, George III.

The childhood of the princess was passed under the guardianship of the Duchess of Kent, who, in every respect, appears to have been well qualified for the task. The Queen’s governess was the companion and friend of the duchess, the Baroness Lehzen; and one better adapted for fulfilling the duties of her situation could hardly have been selected. The princess was early taught to consider herself as the possible future depository of a trust to be exercised only for the good of the whole community; and when, in the course of time, the succession to the throne became no longer a matter of speculation, the additional aid of the late Bishop of Salisbury, subsequently assisted by the Archbishop of Canterbury and the Bishop of Lincoln, was invoked. At the age of nine years the princess

had made considerable progress in the ordinary branches of polite education. She could understand the French, Italian, and German languages. But her *penchant* was evidently for the fine arts, more particularly music, for which, from her earliest childhood, she displayed considerable taste. We are told, on one occasion, the first, we believe, of the kind—Beethoven's celebrated "Hallelujah to the Father," being performed before her royal highness,—when that beautiful passage, "The exalted Son of God," burst upon her astonished ear, she manifested very great emotion. For several minutes after the conclusion of the chorus her royal highness seemed spell-bound, as though a new theory had suddenly been propounded to her imagination; and it was not till the expiration of some minutes, during which she seemed insensible to all around her, that she was able to give expression to her feelings of delight. A letter describing the confirmation of her Majesty, which took place July 30, 1835, may not be deemed uninteresting. "I witnessed," says the writer, "a beautiful touching scene the day before yesterday, at the Chapel Royal, St. James's—the confirmation of the Princess Victoria by the Archbishop of Canterbury. The royal family only was present. The ceremony was very affecting: the beautiful, pathetic, and parental exhortations of the archbishop, on the duties she was called on to fulfil, the great responsibility that her high station imposed on her, the struggles she must prepare for between the allurements of the world and the dictates and claims of religion and justice, and the necessity of her looking up for counsel to her Maker in all the trying scenes that awaited her, most impressive. She was led up by the king, and knelt before the altar. Her mother stood by her side, weeping audibly, as did the queen and the other ladies present. The old king frequently shed tears, nodding his head at each impressive part of the discourse. The little princess herself was drowned in tears. The ceremony over, the king led her up to salute the queen and the royal duchesses present."

The following authentic fact exhibits a most gratifying feature in the character of her Majesty. A man named Killman, who served in the capacity of porter to the late Duke of Kent, had a daughter much afflicted and confined to her bed. On the evening of the late king's funeral, this young woman received from Queen Victoria a present of the Psalms of David, with a marker worked by herself, having a dove, the emblem of peace, in the centre, placed at the forty-first Psalm, with a request that she would read and derive from it the consolation it was intended to convey. The Queen is said to be passionately fond of children. The following anecdote went the round of the newspapers some few years since as an illustration. Her Majesty commanded Lady Barham, one of the ladies in waiting, to bring her family of lovely children to the palace. They were greatly admired and fondly caressed by the Queen, when a beautiful little boy, about three years of age, artlessly said, "I do not see the Queen—I want to see the Queen;" upon which her Majesty, smiling, said, "I am the Queen," and taking her little guest into her arms, repeatedly kissed the astonished child. We give one more anecdote, as an instance of her Majesty's religious feeling. A noble lord, in this respect very unlike her Majesty, arrived at Windsor recently late on Saturday night. "I have brought down for your Majesty's inspection," he said, "some papers of importance; but as they must be gone into at length, I will not trouble your Majesty with them to-night, but request your attendance to them to-morrow morning." "To-morrow morning?" repeated the Queen; to-morrow is Sunday, my lord!" "But business of state, please your Majesty"—"Must be attended to, I know," replied the Queen; "and as, of course, you could not have come down earlier to-night, I will, if these papers are of such vital importance, attend to them after we come from church to-morrow morning." On the morrow, much to the surprise of the noble lord, the sermon was on the duties of the sabbath. "How did your lordship like the sermon?" inquired the young Queen.

"Very much, your Majesty," replied the nobleman, with the best grace he could. "I will not conceal from you," said the Queen, "that last night I sent the clergyman the text from which he preached. I hope we shall all be the better for it." The day passed without a word on the subject of the papers of importance, and at night, when her Majesty was about to withdraw, "To-morrow morning, my lord," she said, "at any hour you please, as early as seven if you like, we will go into these papers." His lordship could not think of intruding at so early an hour on her Majesty; "nine would be quite time enough." "As they are of importance, my lord, I would have attended to them earlier, but at nine be it." And at nine her Majesty was seated ready to receive the nobleman, who had been taught a lesson on the duties of the sabbath, which it is to be hoped, he did not quickly forget.

But we must return to our narrative. On the decease of her uncle, King William IV., June 30, 1837, her Majesty succeeded to the throne. On the 21st of the same month she was proclaimed, and on the 28th the ceremony of her coronation was performed. But we now come to an event of more importance—her marriage with Prince Albert, which took place February 10, 1840. It is time that we say something of the Prince, who is the husband of our Queen, the father of our future kings, and to whom we are indebted for the idea of the Great Industrial Exhibition. His Serene Highness Prince Albert Francis Augustus Charles Emanuel, Duke of Saxe, Prince of Saxe Coburg and Gotha, was born on the 26th of August, 1819, and received the first rudiments of education in the Castle of Erenburg. His father was one of the numerous honorary princes with which Germany abounds. Before the French invasion there were 300 of these principalities. At the Congress of Vienna, however, their number was reduced to 38. Besides its separation into states, Germany was divided by Wenceslaus, in 1307, and by Maximilian, in 1500, into nine grand sections, called circles. Of these two are comprised in Saxony Upper and Lower. In Lower

Saxony we find Coburg Gotha, a territory not very large, but very much improved since the accession of Prince Albert's family. It is the most southern of the Saxon independent states, and is surrounded by Schwartzburg, Meiningen, Hildburghausen, and Bavaria. The valley of the Itz forms the greater part of its territory. The Thuringian mountains stretch along the northern boundary of Coburg, which is only about one-fourth larger than Rutlandshire, having an area of not quite 200 square miles in extent. Joined, however, to Gotha, the territory of the duke equals in size the county of Dorsetshire, having a surface of a thousand square miles. Much of this is covered by mountains and forest land. As to Prince Albert's family, we may here briefly state that the Duchess of Kent is his aunt, and Leopold, King of the Belgians, his uncle. We may further state, that some of his ancestors were noticeable men. In the dimness that overhangs the days of Charlemagne, we faintly perceive a Saxon chief named Wittekind, who for thirty years defied that prince's power. From his loins sprung the race of which Prince Albert is a younger son. All readers of Luther's life know how he was befriended by the Elector of Saxony, Frederick "the Wise," John "the Constant," and John Frederick, "the Magnanimous." Prince Albert boasts these men as his ancestors. Their blood floats in his veins, still he is true to the faith they held.

We have already stated that Prince Albert received the rudiments of his education in the Castle of Erenburg. His masters were chiefly selected from the College of Coburg, and his proficiency was of the most signal character. After the death of Prince Albert's mother, Dorothy Louisa Paulina Charlotte Frederica Augusta, daughter of Augustus, the last duke but one of Saxe Gotha Altenberg, while his father was engaged in arrangements for a second alliance, it was thought expedient that the Prince should be removed for a time from home, and he became the visitor of her Royal Highness the Duchess of Kent, and the fellow-student of the young Princess, whose heart and

hand he was afterwards to share. Who knows but that the seeds of that attachment were then sown which rendered the after marriage of so different a character to what royal marriages generally are! Be this, however, as it may, Prince Albert, who had completed his eleventh year, partook of the lessons in the English language, music, and the various sciences, which were given to his illustrious cousin. Fifteen months were thus spent, when, after his father's second marriage, he returned home. So assiduous was the Prince in his application to study, that at the age of seventeen he passed with *éclat* an examination which admitted him into the University of Bonn, where his education was completed, and where, owing to his amiable manners and propriety of conduct, he became a general favourite.

When, at the close of his university career, Prince Albert returned to his father's court, the inhabitants of the duchy vied with each other in doing honour to the event. His entry into public life was celebrated by poems, balls, illuminations, and rejoicings of all kinds. Soon after the Prince paid a second visit to this country. The occasion was the coronation of her Majesty. Amongst the guests brought together by that event, were no visitors more popular than the Prince and his illustrious sire. On his return the Prince prepared for a tour in Italy, where he spent the winter of that year. Already it is probable that the event which was to raise him to so high a rank was in contemplation. It is said, on his return from Italy, the first object that met his eyes on entering his apartment, was a portrait of her Majesty, which had, during his absence, been sent over for his acceptance from the Queen. At any rate, coming events did cast their shadows before. Hints were dropped by our "own special correspondent," and at the beginning of October, 1839, Prince Albert embarked with his brother, Prince Ernest, for his third visit to London. During this sojourn all doubts were put to flight, and on the 2nd of November following, her Majesty, at a court held at Buckingham

Palace, declared that the Prince was the husband of her choice. The course of royal love did run smooth, and on the 10th of February, 1840, the service, read alike over the highest and the lowest in the land, joined together the royal pair. The issue of that marriage are—1, Victoria Adelaide Mary Louisa, Princess Royal, born November 21, 1840; 2, Albert Edward, Prince of Wales, born November 9, 1841; 3, Alice Maud Mary, born April 25, 1843; 4, Alfred Ernest Albert, born August 6, 1844; 5, Helena Augusta Victoria, born May 25, 1846; 6, Louisa Carolina Alberta, born March 18, 1848; 7, Arthur Patrick William Albert, born May 1, 1850. And whilst we are yet writing, the birth of another prince is announced to us by the joyful firing of cannon on the occasion.

Prince Albert's fame preceded him on English ground. We had heard of him as a scholar, and a ripe and good one. A fellow-student of the Prince at Bonn, in a letter published in the *Times*, stated that the Prince was not only conversant with several European languages, but that he was deeply learned in the classics—that when at Bonn he had published an elegant volume of lyrics for the benefit of the poor—that his skill in painting was also considerable—and that in the composition of several songs he had shown himself a good musician. Proofs of these qualities have now become familiar enough. We were prepared for them, and not surprised at the manifestations of them; but we were not prepared for the untiring philanthropy, for the graceful domestic life, for the greatness of aim, evinced by Prince Albert. For the birth and realisation of that great idea which, more than any event in our own time, has aided progress, and has prepared the way for the brotherhood of man, the world must ever hold in veneration the memory of the Prince. No prouder monument could man desire. When the pyramids shall have crumbled away—when the monumental brass shall have decayed—when London shall be what Tyre and Sidon are now—still 1851 will be memorable in the annals of the world; and labour's sons will remember, as they toil at

the loom, or the forge, or the plough, or the mine, who it was that vindicated for labour her proper place in the breasts of men—who it was that asked the world to do homage to peace and its attendant arts.

With all our great institutions—with all our national celebrations—with all our national sympathies—have the names of Victoria and Albert become entwined. When revolutions raged in neighbouring lands—when blood was spilt in Vienna, in Paris, in Berlin—when thrones tottered to their fall—in our land peace and order remained secure. The future historian will have to tell how, when Victoria went amongst her people—whether she visited the cotton-spinners of Manchester, or the peasantry of Buckinghamshire, or in the presence of the denizens of every clime, in fitting manner, with the organ's peal and the voice of prayer, opened the Crystal Palace—all along the way glanced eager and admiring eyes, and everywhere were the teeming manifestations of a nation's loyalty and love. Already an inscription commemorative of the virtues of our Queen has been written by our poet-laureate. We extract from it the following appropriate lines :—

“ Her court was pure ; her life serene ;
God gave her peace ; her land reposed ;
A thousand claims to reverence closed
In her as mother, wife, and queen.

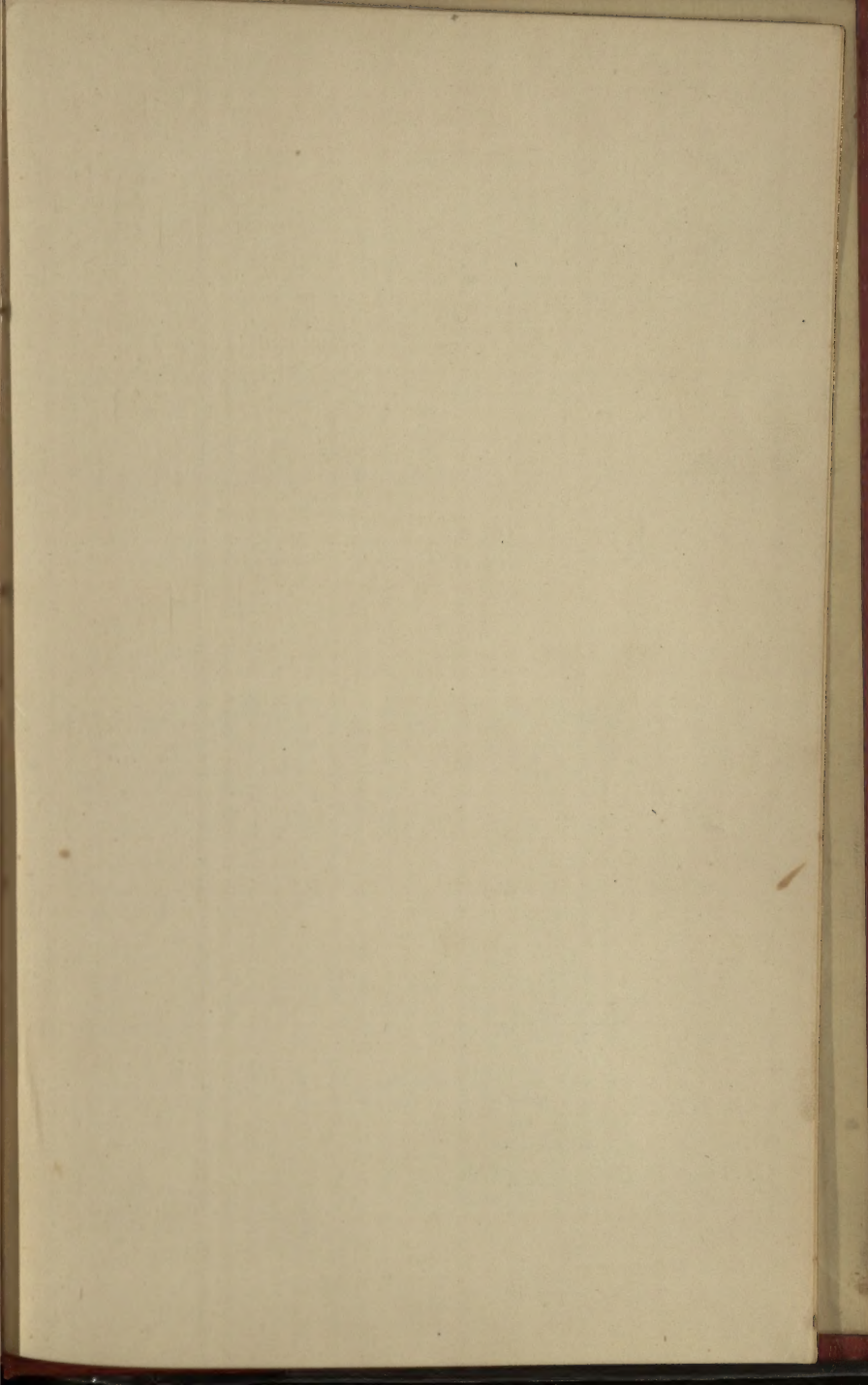
She brought a vast design to pass,
When Europe and the scattered ends
Of our fierce world were mixed as friends
And brethren in her halls of glass.

And statesmen at her council met,
Who knew the season when to take
Occasion by the hand, and make
The bounds of freedom broader yet.

By shaping some august decree
Which kept her throne unshaken still.
Broad-based upon her people's will,
And compassed by the inviolate sea.”

We are not afraid, however, of challenging comparison between these lines and the following, to the same august lady, from the fair friend who has already more than once enriched our pages with her poetic effusions :—

When first I gazed upon thy beauteous brow,
And thought how early it was doomed to wear
That "polished perturbation, golden care,"
Men call a crown, I inly wept—but now
Far other feelings bid my bosom glow;
For thy sweet soul-enthraling smiles declare,
O regal lady, excellent as fair,
The varied blessings which around thee flow.
In virgin bloom beloved, as queen revered,
As wife, as mother, more, still more endeared,
Long for thy happy people may'st thou live!
As long thy gifted graceful consort prove
How rich a boon thy pure, thy generous love,
The choicest treasure even *thou* couldst give.





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